



# SuccessMaker®

## State Standards Alignments for Mathematics

Providing rigorous mathematics intervention  
for K-8 learners with unparalleled precision

OK Standard	OK Standard Text	Item Description	Item ID
K.D.1.1	Collect and sort information about objects and events in the environment.	Formulate questions around numerical data.	smma_lo_01642
K.GM.1.1	Recognize squares, circles, triangles, and rectangles.	Identify the object modeled by a geometric figure.	smma_lo_00570
		Identify circles or squares by name.	smma_lo_00529
		Identify triangles or rectangles by name.	smma_lo_00530
		Identify a geometric figure (circle, triangle, rectangle, or square).	smma_lo_00531
		Identify circles or squares by name.	smma_lo_00544
		Identify triangles or rectangles by name.	smma_lo_00546
		Identify triangles, squares, rectangles, and pentagons.	smma_lo_00550
		Match a geometric figure to its name (circle, triangle, square, or rectangle).	smma_lo_00568
		Count the geometric figures in a picture.	smma_lo_00572
K.GM.1.2	Sort two-dimensional objects using characteristics such as shape, size, color, and thickness.	Identify a shape with positive and negative tests.	smma_lo_00578
		Identify the figure that is the same size and shape as a given figure.	smma_lo_00600
		Match the face of a geometric solid to a plane figure.	smma_lo_00518
		Identify the rectangle with the same size and shape as a given rectangle.	smma_lo_00736
		Identify a shape by two positive tests e.g. red, circle.	smma_lo_00565
		Identify the figure that is not of a given type (rectangle or triangle).	smma_lo_00571
		Match same size and shape (congruent) irregular polygons.	smma_lo_00545
		Identify the figure that has a different number of sides from a given figure.	smma_lo_00553
		Match similar irregular polygons.	smma_lo_00555
		Identify matching congruent figures under rotation and/or reflection.	smma_lo_00557
		Match similar figures in different orientations.	smma_lo_00566
		Match complex congruent figures in different orientations.	smma_lo_00581
		Match simple geometric figures that have the same size, shape, and color.	smma_lo_00514
		Match geometric figures that have the same size and shape (simple figures).	smma_lo_00516
		Identify shapes that are alike.	smma_lo_00549

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K.GM.1.2	Sort two-dimensional objects using characteristics such as shape, size, color, and thickness.	Identify the figure that is a different color from a given figure.	smma_lo_00541
		Identify the figure with a different shape.	smma_lo_00547
		Classify geometric figures by a shape	smma_lo_00576
		Identify a pair of objects that are not the same size.	smma_lo_00692
K.GM.1.3	Identify attributes of two-dimensional shapes using informal and formal geometric language interchangeably.	Identify open and closed figures.	smma_lo_00580
		Count the number of sides in a polygon.	smma_lo_00586
		Identify figures with more or fewer than a given number of sides.	smma_lo_00587
		Identify corners (vertices) of polygons.	smma_lo_00589
		Count the corners (vertices) of a polygon (3 to 7 corners).	smma_lo_00596
K.GM.1.4	Use smaller shapes to form a larger shape when there is an outline to follow.	Identify puzzle pieces needed to make a given shape, and then complete the puzzle (4 to 6 pieces).	smma_lo_00564
K.GM.2.1	Use words to compare objects according to length, size, weight, position, and location.	Given 3 objects, Identify the shortest or longest object.	smma_lo_00693
		Identify the object on the top, in the middle, or on the bottom.	smma_lo_00524
		Identify the object on the left or the right.	smma_lo_00525
		Identify the picture on the left or right.	smma_lo_00526
		Identify the object inside or outside a convex figure.	smma_lo_00532
		Identify the object that is the top, middle or bottom one.	smma_lo_00540
		Identify the object that is the top, middle, or bottom one.	smma_lo_00543
		Determine whether points are outside, inside, or on a geometric figure.	smma_lo_00552
		Identify the object that is near or far from another object.	smma_lo_00574
		Identify objects inside or outside a convex figure.	smma_lo_00575
		Identify the object behind or in front of another object in a three-dimensional perspective.	smma_lo_00584
		Move an object to a specified location. (upper left, upper right, lower left, or lower right corner).	smma_lo_00590
		Identify the tallest object.	smma_lo_00694
		Identify the biggest or smallest object.	smma_lo_00695
Identify the object that is a different length.	smma_lo_00709		
Identify the object that is a different height.	smma_lo_00712		

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K.GM.2.1	Use words to compare objects according to length, size, weight, position, and location.	Identify the objects that are taller or shorter than a nonstandard unit.	smma_lo_00743
		Identify the smaller or bigger rectangle.	smma_lo_00747
		Identify which familiar object is heavier.	smma_lo_00781
K.GM.2.2	Order up to 6 objects using measurable attributes, such as length and weight.	Order three objects by length.	smma_lo_02147
K.N.1.1	Count aloud forward in sequence to 100 by 1's and 10's.	Enter the missing date on a calendar.	smma_lo_00700
K.N.1.2	Recognize that a number can be used to represent how many objects are in a set up to 10.	Match a digit to a set with that number of objects (1 to 5).	smma_lo_00934
		Count objects by pairing each object with one number 1 to 10; determine how many objects there are.	smma_lo_02092
		Count objects by pairing each object with one number 1 to 10; determine how many objects there are when 1 more is added.	smma_lo_02093

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K.N.1.2	Recognize that a number can be used to represent how many objects are in a set up to 10.	Count objects arranged in a row (1-5 objects).	smma_lo_00933
		Count specific objects within a larger set (1 to 6 objects).	smma_lo_00936
		Count specific objects within a larger set (6 to 9 objects).	smma_lo_00958
		Identify sets of objects that combined have a given sum (sums 6 to 9).	smma_lo_00726
K.N.1.3	Use ordinal numbers to represent the position of an object in a sequence up to 10.	Identify the nth object in a sequence (first to fifth).	smma_lo_00941
		Identify the ordinal word for the nth object in a sequence (first to fifth).	smma_lo_00968
K.N.1.4	Recognize without counting (subitize) the quantity of a small group of objects in organized and random arrangements up to 10.	Identify the group of objects that represent a number (1 to 5 objects).	smma_lo_00956
		Identify a set with the same number of objects as a given set (1 to 5 objects).	smma_lo_00922
		Identify the group with the greatest number of shapes of a given type (1 to 6).	smma_lo_00959
K.N.1.5	Count forward, with and without objects, from any given number up to 10.	Given a number (1-9) of objects, determine how many more objects are needed to make a ten.	smma_lo_02017
		Find the next number in a sequence, counting by 1's (1 to 5).	smma_lo_00940
		Find the next number in a sequence, counting by 1's (1 to 5).	smma_lo_00939
		Count objects not arranged in a row (1 to 5 objects).	smma_lo_00935
		Count objects not arranged in a row (6 to 9 objects).	smma_lo_00943
		Count objects arranged in a row (one to nine objects).	smma_lo_00957
K.N.1.6	Read, write, discuss, and represent whole numbers from 0 to at least 10. Representations may include numerals, pictures, real objects and picture graphs, spoken words, and manipulatives.	Find a number equal to 2 to 9 ones.	smma_lo_00972
		Enter the number of ones equal to number 1 to 9.	smma_lo_00973
		Identify a written number from a spoken number (two-digit).	smma_lo_00977
		Identify the number of objects for a word name. (1 to 9 objects).	smma_lo_00964
		Identify a number, model, or word with the same value (1 to 9).	smma_lo_00965
		Identify a number from a spoken number (1 to 5).	smma_lo_00937
		Identify a number from a spoken number (6 to 9).	smma_lo_00944
		Make a group with one to five objects.	smma_lo_00938
		Make a group with 6 to 9 objects.	smma_lo_00945
		Make a set with the same number of objects as a given set (1 to 5 objects).	smma_lo_00926
		Make a group with the same number of objects as a given group (6 to 9 objects).	smma_lo_00929
		Identify a number that is greater than or less than a spoken number (1 to 9).	smma_lo_00946

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K.N.1.7	Find a number that is 1 more or 1 less than a given number up to 10.	Find the number that comes before a given number, counting by 1's (1 to 9).	smma_lo_00949
		Find a missing number in a sequence, counting by 1's (1 to 20).	smma_lo_00951
		Find a missing number in a sequence, counting by 1's (1 to 9).	smma_lo_00960
		Find a missing number in a sequence, counting by 1's (10 to 20).	smma_lo_00970
		Find a missing number in a sequence, counting by 1's (11 to 50).	smma_lo_00982
		Find a missing number in a sequence, counting by 1's (51 to 99).	smma_lo_00983
		Find the next number in a sequence, counting by 1's (1 to 9).	smma_lo_00948
		Identify a group with more objects than a given group (1 to 5 objects).	smma_lo_00923
		Identify a group with fewer objects than a given group (1 to 5 objects).	smma_lo_00924
		Make a group with one more object than a given group (one to five objects).	smma_lo_00927
		Make a group with one fewer object than a given group (1 to 5 objects).	smma_lo_00928
		Make a group with one more object than a given group (six to nine objects).	smma_lo_00930
		Make a group with one fewer object than a given group (6 to 9 objects).	smma_lo_00931
		Create a set with the same, more, or fewer number of objects than a given group (1 to 9 objects).	smma_lo_00953
		Create a set with one more object than a given set (1 to 9 objects).	smma_lo_00954
		Create a set with one fewer object than a given set (1 to 9 objects).	smma_lo_00955
		K.N.1.8	Using the words more than, less than or equal to compare and order whole numbers, with and without objects, from 0 to 10.
Identify four numbers ordered from least to greatest (two-digit).	smma_lo_00985		
Identify whole numbers on a number line that satisfy the inequality (0 to 10).	smma_lo_01023		
K.N.2.1	Compose and decompose numbers up to 10 with objects and pictures.	Count two sets of objects to find the total (sums 2 to 4).	smma_lo_00003
		Count two sets of objects to find the total (sums 4 to 6).	smma_lo_00004
		Count two sets of objects to find the total (sums 2 to 5).	smma_lo_00005
		Count two sets of objects to find the total (sums 6 to 10).	smma_lo_00006
		Count objects in two sets and add (sums 1 to 5).	smma_lo_00007
		Count the objects in two sets and add (sums 6 to 10).	smma_lo_00008

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K.N.2.1	Compose and decompose numbers up to 10 with objects and pictures.	Decompose numbers 2-10 into pairs in more than one way by using objects.	smma_lo_02096
		Model the number that makes 10 when added to a given number from 1 to 9; then identify the number.	smma_lo_02097
K.N.4.1	Identify pennies, nickels, dimes, and quarters by name.	Identify nickels or dimes.	smma_lo_00698
		Identify the coin worth 1, 5, 10, or 25 cents.	smma_lo_00702
1.D.1.1	Collect, sort, and organize data in up to three categories using representations (e.g., tally marks, tables, Venn diagrams).	Create a table from a vertical bar graph.	smma_lo_01132
		Identify a vertical bar graph that represents data in a table.	smma_lo_01134
		Identify the table that represents the data in a vertical bar graph.	smma_lo_01136
1.D.1.2	Use data to create picture and bar-type graphs to demonstrate one-to-one correspondence.	Label the categories of a vertical bar graph based on data from a table.	smma_lo_01138
1.D.1.3	Draw conclusions from picture and bar-type graphs.	Read and interpret a horizontal or vertical pictograph (four to six items).	smma_lo_00131
		Determine the most or the least from a horizontal or vertical pictograph (four to six items).	smma_lo_00135
		Read and interpret a horizontal or vertical pictograph (six items).	smma_lo_00150
		Read a pictograph (3 categories, 1 to 9 items per category).	smma_lo_01124
		Read and interpret a pictograph about birds counted (2 to 5 birds in each row).	smma_lo_01299
		Identify the two-column vertical bar graph that shows one category has fewer than, the same number as, or more than the other category.	smma_lo_01133
1.GM.1.4	Recognize three-dimensional shapes such as cubes, cones, cylinders, and spheres.	Identify geometric solids (prisms, pyramids, cones, or spheres).	smma_lo_00667
		Identify a geometric solid (cylinder, pyramid, or rectangular prism).	smma_lo_00616
		Identify geometric solids (cones, cubes, cylinders, pyramids, rectangular prisms, spheres).	smma_lo_00622
1.GM.2.1	Use nonstandard and standard measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement	Match objects of the same height (3 heights).	smma_lo_00687
		Match objects of the same length (3 lengths).	smma_lo_00688
		Find the height (2 to 9 nonstandard units).	smma_lo_00710
		Count to find the height and width (2 to 5 nonstandard units).	smma_lo_00713
		Find the total length of two objects (nonstandard units, sums 2 to 5).	smma_lo_00720
		Estimate the height and width (2 to 5 nonstandard units).	smma_lo_00721

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1.GM.2.1	Use nonstandard and standard measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement	Measure the length of an object (2 to 7 nonstandard units).	smma_lo_00777
		Identify the group of objects that is 1 to 5 nonstandard units long or tall.	smma_lo_00701
		Count to find how long or tall (2 to 9 nonstandard units).	smma_lo_00705
		Identify an object given the height and width in nonstandard units.	smma_lo_00725
		Find the distance between two objects (2 to 8 nonstandard units).	smma_lo_00732
		Identify a vertical distance (2 to 9 centimeters).	smma_lo_00758
1.GM.2.3	Measure the same object/distance with units of two different lengths and describe how and why the measurements differ.	Measure the length of an object in cm and inches; relate the two measurements to the sizes of the units.	smma_lo_02003
1.GM.2.4	Describe a length to the nearest whole unit using a number and a unit.	Measure the length of an object to the nearest inch (2 to 6 inches).	smma_lo_00703
		Measure the length of an object to the nearest centimeter (3 to 12 cm).	smma_lo_00750
		Measure the length of an object to the nearest inch (1 to 6 inches).	smma_lo_00755
		Measure the length of an object to the nearest centimeter (4 to 12 centimeters).	smma_lo_00762
		Measure the length of an object in centimeters or inches (whole numbers).	smma_lo_00785
		Measure two objects in inches; determine how much longer one object is than the other.	smma_lo_02015
1.GM.2.5	Use standard and nonstandard tools to identify volume/capacity. Compare and sort containers that hold more, less, or the same amount.	Add units of capacity (pints, sums 2 to 6).	smma_lo_00764
		Choose the appropriate customary units of liquid measure (cups, quarts, and gallons).	smma_lo_01674
		Add nonstandard units of capacity (sums 2 to 8).	smma_lo_00739
		Subtract nonstandard units of capacity (differences 0 to 3).	smma_lo_00742
		Find the capacity of a container (3 to 10 nonstandard units).	smma_lo_00754
		Choose the appropriate unit of capacity (ounce, cup, pint, quart, and gallon).	smma_lo_01864
		Match amounts of liquid in containers (3 amounts).	smma_lo_00689
		Identify the container with the greatest or least capacity.	smma_lo_00696

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1.GM.3.1	Tell time to the hour and half-hour (analog and digital).	Tell time to the hour using an analog clock.	smma_lo_00714
		Tell time to the hour using digital and analog clocks.	smma_lo_00716
		Tell time to the half-hour using an analog clock.	smma_lo_00724
		Identify the hour or minute hand of a clock.	smma_lo_00697
1.N.1.1	Recognize numbers to 20 without counting (subitize) the quantity of structured arrangements. Clarification statement: Subitizing is defined as instantly recognizing the quantity of a set without having to count. "Subitizing" is not a vocabulary word and is not meant for student discussion at this age.	Enter the number shown (1 to 5).	smma_lo_00932
		Enter the number shown (1 to 9).	smma_lo_00942
		Enter the number shown (0 to 4).	smma_lo_00001
		Enter the number shown (5 to 9).	smma_lo_00002
1.N.1.2	Use concrete representations to describe whole numbers between 10 and 100 in terms of tens and ones.	Decompose numbers from 11 to 19 into ten ones and some further ones.	smma_lo_02094
		Compose numbers from 11 to 19 given ten ones and some further ones by using objects.	smma_lo_02095
		Find the number of a set of objects (grouped tens and ones; two-digit).	smma_lo_00976
		Show a number using base-ten blocks (two-digit).	smma_lo_00978
		Model the numbers from 11 to 19 with place value blocks.	smma_lo_02018
		Model multiples of 10 (from 10 to 90) with place value blocks.	smma_lo_02019
		Given a number (1-9) of groups of 10 objects, determine how many more groups of 10 objects are needed to make a hundred.	smma_lo_02011

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1.N.1.3	Read, write, discuss, and represent whole numbers up to 100. Representations may include numerals, addition and subtraction, pictures, tally marks, number lines and manipulatives, such as bundles of sticks and base 10 blocks.	Match each set of tally marks to a total (1 to 9).	smma_lo_00952
		Enter the number equal to a given number of ones and tens (0 to 9 tens, 1 to 9 ones).	smma_lo_00979
		Enter how many tens and ones for a number (two-digit).	smma_lo_00980
		Enter the number equal to 1 to 9 tens.	smma_lo_00974
		Enter the number of tens for a given multiple of ten (10 to 90).	smma_lo_00975
		Subtract two multiples of 10 (student choice, minuends 20 to 90, subtrahends 10 to 80).	smma_lo_01426
		Subtract multiples of 10 (student choice, minuends 20 to 90, subtrahends 10 to 80).	smma_lo_01437
		Subtract multiples of 10 (minuends 20 to 90, subtrahends 10 to 80, horizontal presentation).	smma_lo_01438
		Write an addition number sentence to represent a picture (sums 1 to 9).	smma_lo_00036
1.N.1.4	Count forward, with and without objects, from any given number up to 100 by 1s, 2s, 5s and 10s.	Find a missing number in a sequence, counting by 10's (two-digit, non multiples of	smma_lo_00992
		Find a missing number in a sequence, counting by 5's (5 to 50).	smma_lo_01003
		Find a missing number in a sequence, counting up or down by 5's (two-digit).	smma_lo_01004
		Count by 2's, 4's, 5's, or 10's (2 to 20, 4 to 40, 5 to 50, 80 to 200).	smma_lo_01030
		Find the missing number in a sequence, counting by 5's or 10's.	smma_lo_01231
		Find a missing number in a sequence, counting by 2's (0 to 10), number line in	smma_lo_00966
		Find a missing number in a sequence, counting by 10's (10 to 100, visual support).	smma_lo_00971
		Find a missing number in a sequence, counting by 10's (10 to 100).	smma_lo_00981
1.N.1.5	Find a number that is 10 more or 10 less than a given number up to 100.	Mentally find 10 more or 10 less than a given two-digit number; model the solution with place value blocks.	smma_lo_02020
		R: Find a number that is one less or one more than a given number (two-digit), number line in feedback.	smma_lo_00984

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1.N.1.6	Compare and order whole numbers from 0 to 100.	Compare numbers using $<$ or $>$ symbols (20 to 99).	smma_lo_00328
		Identify two numbers that make an inequality true (two-digit).	smma_lo_00997
		Identify the greatest or least number (two-digit).	smma_lo_00999
		Identify the value that is greater than one number and less than another in context.	smma_lo_01554
		Compare numbers using $<$ or $>$ symbols (1 to 19).	smma_lo_00325
		Compare sums (sums 1 to 9).	smma_lo_00326
		Compare differences (minuends 1 to 9).	smma_lo_00337
		Identify two numbers that make an inequality true (0 to 9).	smma_lo_00994
1.N.1.7	Use knowledge of number relationships to locate the position of a given whole number on an open number line up to 20.	Find a missing number on a number line (0 to 9).	smma_lo_00961
		Find a number that is one fewer or one greater than a given number (1 to 9), number line in feedback.	smma_lo_00962
		Identify a number on a number line between two given numbers (1 to 9).	smma_lo_00993
1.N.1.8	Use objects to represent and use words to describe the relative size of numbers, such as more than, less than, and equal to.	Find two numbers within a range (two-digit).	smma_lo_00998
1.N.2.1	Represent and solve real-world and mathematical problems using addition and subtraction up to ten.	Solve an addition problem in context (different objects, sums 2 to 5).	smma_lo_01544
		Solve a subtraction problem in context (minuends 2 to 5).	smma_lo_01545
		Identify and solve a number sentence for an addition problem in context (sums 2 to 9).	smma_lo_01553; smma_lo_01555
		Identify the expression that represents a subtraction problem in context (minuends 2 to 5).	smma_lo_01559
		Identify and solve the number sentence for a subtraction problem in context (minuends 2 to 5).	smma_lo_01562
		Identify and solve a number sentence for a subtraction problem in context (minuends 2 to 5).	smma_lo_01568
		Act out the problem to find the sum (basic facts).	smma_lo_01241
		Act out a problem to find the sum of three numbers (one-digit addends).	smma_lo_01249
		Act out the solution to an addition problem in context (three addends, sums 1 to 9).	smma_lo_01537

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1.N.2.1	Represent and solve real-world and mathematical problems using addition and subtraction up to ten.	Solve an addition problem with three addends in context (sums 3 to 10).	smma_lo_01549
		Solve an addition problem with three addends in context (sums 3 to 10).	smma_lo_01557
		Add two addends in words (one-digit addends, sums 6 to 10).	smma_lo_00016
1.N.2.1	Represent and solve real-world and mathematical problems using addition and subtraction up to ten.	Act out the solution to multi-step problem in context (addends, minuends 1 to 4).	smma_lo_01538
		Model and apply joining stories to solve problems (sums 1 to 9).	smma_lo_01863
		Identify a picture that represents an addition problem (sums 2 to 6).	smma_lo_01228
		Write a number sentence for an addition problem (sums 2 to 5).	smma_lo_01229
		Write a number sentence for an addition problem (sums 2 to 10).	smma_lo_01230
		Identify a picture that represents a subtraction problem (minuends 5 to 10).	smma_lo_01235
		Solve a subtraction problem in context (minuends 2 to 5, pictorial models).	smma_lo_01412
		Identify the expression that represents a picture (minuends 2 to 9).	smma_lo_01414
		Identify the pictorial solution to a subtraction problem (minuends 2 to 9).	smma_lo_01422
		Identify the pictorial solution to a problem in context (minuends 4 to 9).	smma_lo_01423
		Identify the picture that represents a subtraction problem in context (minuends 2 to 10).	smma_lo_01542
		Solve a subtraction problem in context (minuends 2 to 5, pictorial models).	smma_lo_01411
		Solve a problem in context by adding or subtracting 1.	smma_lo_01535
		Act out the solution to a subtraction problem in context (minuends 1 to 6).	smma_lo_01536
		Solve an addition problem in context (same objects, sums 2 to 5).	smma_lo_01540
1.N.2.2	Determine if equations involving addition and subtraction are true.	Determine if equations involving addition and subtraction are true or false.	smma_lo_02024
1.N.2.3	Demonstrate fluency with basic addition facts and related subtraction facts up to 10.	Add three addends (sums 2 to 5).	smma_lo_00026
		Add three addends (audio presentation, sums 3 to 5).	smma_lo_00027
		Add three addends (sums 6 to 10).	smma_lo_00028
		Add three addends displayed horizontally (sums 6 to 10).	smma_lo_00029
		Add two addends (sums 6 to 10).	smma_lo_00012
		Add using basic math facts (addends 0 to 5, sums 1 to 5).	smma_lo_00014
		Add 1 to a number (sums 1 to 10).	smma_lo_00015
		Add four addends (one-digit addends, sums 3 to 10).	smma_lo_00030

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OK Standard	OK Standard Text	Item Description	Item ID
1.N.2.3	Demonstrate fluency with basic addition facts and related subtraction facts up to 10.	Subtract using basic math facts (minuends 6 to 9).	smma_lo_01418
		Subtract using basic math facts (minuends 1 to 9).	smma_lo_01419
		Subtract using basic math facts (differences are 0).	smma_lo_01420
		Subtract 1 from a number (minuends 1 to 9).	smma_lo_01421
		Subtract a number from 10 (subtrahends 1 to 9).	smma_lo_01424
		Complete fact families with four facts (sums 3 to 10).	smma_lo_00322
		Solve for $c$ in $a + b = c$ (sums 0 to 9).	smma_lo_00323
		Solve for $c$ in $a - b = c$ (differences 1 to 9).	smma_lo_00324
		Add using basic math facts displayed horizontally (sums 6 to 10).	smma_lo_00013
		Subtract using basic math facts (minuends 2 to 10).	smma_lo_01413
		Subtract using basic math facts displayed horizontally (minuends 6 to 9).	smma_lo_01417
		Add zero to a number (sums 1 to 9).	smma_lo_00035
		Add using basic math facts displayed horizontally (sums 2 to 5).	smma_lo_00011
		Add using basic math facts (sums 1 to 5).	smma_lo_00010
		Subtract using basic math facts displayed horizontally (minuends 0 to 5).	smma_lo_01415
		Subtract using basic math facts (minuends 0 to 5).	smma_lo_01416
		1.N.3.1	Partition a regular polygon using physical models and recognize when those parts are equal.
Count the number of equal parts in a fractional model (2 to 8 parts).	smma_lo_00402		
Identify the figure divided into equal parts (halves to eighths in words).	smma_lo_00417		
Determine whether two to six segments divide a figure into congruent parts.	smma_lo_00634		
2.A.2.3	Apply commutative and identity properties and number sense to find values for unknowns that make number sentences involving addition and subtraction true or false.	Apply the Commutative Property of Addition as a strategy to add two numbers; use fact families as a strategy to subtract two numbers.	smma_lo_02021

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OK Standard	OK Standard Text	Item Description	Item ID
2.D.1.1	Explain that the length of a bar in a bar graph or the number of objects in a picture graph represents the number of data points for a given category.	Construct a vertical bar graph based on data from a horizontal bar graph.	smma_lo_01146
		Create a vertical bar graph from a table and interpret data in the graph.	smma_lo_01130
		Interpret the shorter or taller bar of a vertical bar graph as having fewer or more items.	smma_lo_01131
		Construct a horizontal bar graph based on data from a vertical bar graph.	smma_lo_01150
		Create a table based on data from a bar graph.	smma_lo_01645
2.D.1.3	Write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of	Read and interpret a horizontal pictograph with a scale of 2 (five items).	smma_lo_00140
2.D.1.4	Draw conclusions and make predictions from information in a graph.	Analyze a bar graph to find the number of bars that fall within a given range.	smma_lo_01154
		Compare the amounts of two rows in a pictograph whose scale is 2, 5, or 10 items per picture.	smma_lo_01172
		Compare the amounts of two rows in a pictograph whose scale is 2, 5, or 10 items per picture.	smma_lo_01174
		Read and interpret a horizontal or vertical pictograph (four to six items).	smma_lo_00138
		Identify the number of categories in a vertical bar graph that are less than, equal to, and greater than a given value.	smma_lo_01148
		Identify the vertical bar graph that shows a strictly increasing or decreasing trend.	smma_lo_01135
		Read and interpret a pictograph with a scale of 2, 5 or 10.	smma_lo_01158
		Read and interpret data about tree growth from a bar graph.	smma_lo_01302
		Given a bar graph of tree growth, calculate the height a tree grew from one year to another.	smma_lo_01303
		Read a bar graph and answer questions about tree growth over time.	smma_lo_01304
		Predict the effect of changing temperatures on the weather.	smma_lo_01312
		Identify all the towns with temperatures below 32 degrees Fahrenheit on a weather map.	smma_lo_01311
2.GM.1.2	Describe, compare, and classify two-dimensional figures according to their geometric attributes.	Match a plane figure to a geometric design that uses the figure.	smma_lo_00554
		Identify the quadrilaterals in a set of figures.	smma_lo_00615
		Identify the quadrilaterals that are trapezoids or rhombuses.	smma_lo_00659

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OK Standard	OK Standard Text	Item Description	Item ID
2.GM.1.4	Recognize right angles and classify angles as smaller or larger than a right angle.	Determine whether an angle is larger than, smaller than, or the same size as a right angle.	smma_lo_00624
2.GM.2.2	Explain the relationship between length and the numbers on a ruler by using a ruler to measure lengths to the nearest whole unit.	Find the total length of two to four objects laid end to end (2 to 6 inches).	smma_lo_00748
		Measure two lengths and find the sum (metric, sums 2 to 9).	smma_lo_00753
		Measure two metric lengths, write an addition problem, and find the sum (sums 2 to 12 centimeters).	smma_lo_00756
2.N.1.1	Read, write, discuss, and represent whole numbers up to 1,000. Representations may include numerals, words, pictures, tally marks, number lines and manipulatives.	Use base-ten blocks to show a number (three-digit).	smma_lo_01012
		Enter the number for a word name (two-digit).	smma_lo_01001
		Collect, tally, and graph the results generated by a spinner.	smma_lo_01144
		Find a number equal to 1 to 9 hundreds.	smma_lo_01007
		Identify the word name for a three-digit number.	smma_lo_01009
		Enter the number for a word name (100 to 999).	smma_lo_01042
		Find a number between two given numbers (1 to 999).	smma_lo_01020
2.N.1.3	Use place value to describe whole numbers between 10 and 1,000 in terms of hundreds, tens and ones. Know that 100 is 10 tens, and 1,000 is 10 hundreds.	Find two numbers when given place value clues (two-digit).	smma_lo_00990
		Identify a number with a given digit in the ones or tens place.	smma_lo_00995
		Find two numbers when given place value clues (two-digit).	smma_lo_01049
		Enter a three-digit number in a place-value chart (base-ten block models, three-digit).	smma_lo_01013

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.1.3	Use place value to describe whole numbers between 10 and 1,000 in terms of hundreds, tens and ones. Know that 100 is 10 tens, and 1,000 is 10 hundreds.	Find a number equal to 1 to 9 hundreds, 0 to 9 tens, and 0 to 9 ones.	smma_lo_01015
		Enter a three-digit number in a place-value chart (base-ten block models, three-digit).	smma_lo_01025
		Find the number of hundreds equivalent to a multiple of 100 (100 to 900).	smma_lo_01008
		Identify the number represented by a set of objects (pictorial models of hundreds, tens, and ones; three-digit).	smma_lo_01010
		Find a number equal to 1 to 9 hundreds, 0 to 9 tens, and 0 to 9 ones.	smma_lo_01047
2.N.1.6	Use place value to compare and order whole numbers up to 1,000 using comparative language, numbers, and symbols (e.g., $425 > 276$ , $73 < 107$ , page 351 comes after page 350, 753 is between 700 and 800).	Compare sums (two-digit addends, multiples of 10).	smma_lo_00334
		Identify the greatest or least number (three-digit).	smma_lo_01019
		Identify the greatest or least number (three-digit).	smma_lo_01026
		Identify a number that is between two numbers, or before, after, or closer to a number (101 to 999).	smma_lo_01027
		Identify four numbers that are in consecutive order (three-digit).	smma_lo_01029; smma_lo_01021
		Identify a set of numbers between two numbers, or less than or greater than a given number (101 to 999).	smma_lo_01068
2.N.2.1	Use the relationship between addition and subtraction to generate basic facts up to 20.	Identify the number sentence that solves a subtraction problem in context (minuends 11 to 18, subtrahends 1 to 9).	smma_lo_01439
		Add doubles (sums 2 to 18).	smma_lo_00017
		Subtract 1 from a number (two-digit minuends, no regrouping, presented vertically).	smma_lo_01427
		Subtract using basic math facts displayed horizontally (minuends 10 to 14, subtrahends 1 to 9).	smma_lo_01429
		Subtract (student choice, minuends 10 to 15, subtrahends 0 to 5, no regrouping).	smma_lo_01430
		Subtract using basic math facts (student choice, minuends 16 to 19, subtrahends 1 to 9).	smma_lo_01433
		Subtract using basic math facts (minuends 15 to 18, subtrahends 6 to 9).	smma_lo_01434
		Subtract using basic math facts (minuends 11 to 19, subtrahends 1 to 8).	smma_lo_01435
		Subtract using basic math facts (minuends 11 to 18, subtrahends 1 to 9).	smma_lo_01436
		Subtract vertically using basic math facts (minuends 15 to 18, subtrahends 6 to 9).	smma_lo_01444

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.2.1	Use the relationship between addition and subtraction to generate basic facts up to 20.	Subtract vertically (minuends 11 to 19, subtrahends 1 to 9, no regrouping).	smma_lo_01445
		Create a fact family (addition and subtraction).	smma_lo_01857

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.2.2	Demonstrate fluency with basic addition facts and related subtraction facts up to 20.	Add doubles (sums 4 to 18).	smma_lo_00019
		Subtract 10 from a two-digit number (student choice, minuends 11 to 19).	smma_lo_01441
		Add three addends (one-digit addends, sums 11 to 19).	smma_lo_00031
		Add three addends presented horizontally (one-digit addends, sums 10 to 19).	smma_lo_00032
		Add two consecutive addends (one-digit addends, sums 1 to 17).	smma_lo_00020
		Add two consecutive addends displayed horizontally (one-digit addends, sums 1 to 17).	smma_lo_00021
		Add vertically using basic math facts (sums 11 to 18).	smma_lo_00022
		Add using basic math facts displayed horizontally (sums 10 to 18).	smma_lo_00023
		Add two numbers presented in words using basic math facts (sums 1 to 18).	smma_lo_00024
		Add ten to a number (sums 11 to 19), given in words.	smma_lo_00038
		Add a two-digit number to a one-digit number by counting (sums up to 18), given in words.	smma_lo_00039
		Add two addends vertically (sums 10 to 18).	smma_lo_00041
		Add using basic math facts displayed horizontally (sums 10 to 18).	smma_lo_00042
		Add 9 to a number (sums 10 to 18), given in words.	smma_lo_00045
		Subtract a number from its double (differences 1 to 9).	smma_lo_01425
		Subtract 10 from a number (minuends 11 to 19, horizontal presentation).	smma_lo_01442
		Solve for c in $a + b = c$ (sums 10 to 18).	smma_lo_00327
		Solve for c in $a - b = c$ (differences 1 to 9).	smma_lo_00329
2.N.2.4	Use strategies and algorithms based on knowledge of place value and equality to add and subtract two-digit numbers.	Subtract a multiple of 10 from a 2-digit number (minuends 11-99, vertical presentation).	smma_lo_01452
		Subtract (student choice, minuends 21 to 99, no regrouping).	smma_lo_01454
		Subtract two numbers displayed horizontally (counting up strategy, minuends 21 to 98, subtrahends 2 to 9, regrouping).	smma_lo_01462
		Subtract two-digit numbers with regrouping (vertical presentation).	smma_lo_01463
		Subtract two numbers displayed horizontally (counting up strategy, minuends 25 to 98, subtrahends 6 to 9, regrouping).	smma_lo_01472

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.2.4	Use strategies and algorithms based on knowledge of place value and equality to add and subtract two-digit numbers.	Subtract with regrouping (minuends 25-98).	smma_lo_01488
		Subtract two numbers by regrouping the numbers into a ten and some ones.	smma_lo_02026
		Add a multiple of 10 and a one-digit number displayed horizontally (sums 11 to 99) using place value.	smma_lo_00040
		Explain how to solve an addition problem, either by using place value blocks or by rewriting the problem.	smma_lo_02012
		Explain how to solve a subtraction problem, either by using place value blocks or by rewriting the problem as an addition problem.	smma_lo_02013
2.N.2.5	Solve real-world and mathematical addition and subtraction problems involving whole numbers up to 2 digits.	Calculate the difference between the life spans of two animals (differences 2 to 59).	smma_lo_01310
		Make a picture to solve a two-step problem in context (addition and subtraction).	smma_lo_01551
		Make a picture to solve a two-step problem in context (addition and subtraction).	smma_lo_01552
		Add two multiples of 10 (student choice, sums 20 to 90).	smma_lo_00025
		Add two addends (one- and two-digit addends, sums 11 to 99, no regrouping).	smma_lo_00033
		Add two addends (student choice, a one-digit and a two-digit addend, sums 20 to 98, regrouping).	smma_lo_00054
		Choose the expression that can represent a problem with extra information; then solve (addition or subtraction).	smma_lo_01239
		Identify a picture that represents a subtraction problem (one or two-digit).	smma_lo_01244
		Identify the picture that can be used to solve an addition or subtraction problem.	smma_lo_01255
		Identify a number sentence that can be used to solve a word problem with extra information (addition or subtraction, basic facts).	smma_lo_01242
		Solve an addition problem in context (three addends, sums 9 to 18).	smma_lo_01576
		Subtract a one-digit number from a two-digit number displayed horizontally (minuends 11 to 19, subtrahends 1 to 9).	smma_lo_01443
		Add two multiples of 10 displayed horizontally (sums 20 to 90).	smma_lo_00044
		Add two addends displayed horizontally (one-digit and a two-digit addend, sums 11 to 99).	smma_lo_00049

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.2.5	Solve real-world and mathematical addition and subtraction problems involving whole numbers up to 2 digits.	Find the sum of two numbers displayed horizontally (a one-digit and a two-digit addend, sums 20 to 98, regrouping), given	smma_lo_00055
		Add three addends displayed horizontally (one-digit addends, sums 20 to 27).	smma_lo_00062
		Add two addends displayed horizontally (two-digit addends, sums 21 to 99).	smma_lo_00064
		Add two addends (student choice, two-digit addends, sums 30 to 98, regrouping ones).	smma_lo_00067
		Add three addends (student choice, one-digit addends, sums 20 to 27).	smma_lo_00069
		Solve for $c$ in $a - b = c$ (minuends 20 to 99, subtrahends 1 to 9, no regrouping).	smma_lo_00338
		Solve for $c$ in $a - b = c$ (minuends 20 to 99, two-digit subtrahends, no regrouping).	smma_lo_00340
		Solve for $c$ in $a - b = c$ (minuends 20 to 99, regrouping).	smma_lo_00342
		Subtract (student choice, minuends 21 to 95, subtrahends 1 to 9, no regrouping).	smma_lo_01428
		Subtract (minuends 21 to 99, subtrahends 1 to 9, no regrouping).	smma_lo_01450
		Add three multiples of 10 (student choice, sums 30 to 90).	smma_lo_00043
		Add three addends (two-digit addends, sums 33 to 99, no regrouping).	smma_lo_00056
		Add three addends (student choice, one-digit and two-digit addends, sums 21 to 99, no regrouping).	smma_lo_00079
		Add three addends (student choice, one- and two-digit addends, sums 20 to 99, no regrouping).	smma_lo_00087
		Add three addends (student choice, one- and two-digit addends, sums 30 to 98, regrouping ones).	smma_lo_00090
		Choose an operation to solve a problem with extra information; then solve (addition or subtraction, basic facts).	smma_lo_01247
		Identify a number sentence that can be used to solve a problem with extra information (addition or subtraction, basic facts).	smma_lo_01250
		Solve an addition problem in context (two-digit addends, sums less than 100, no regrouping).	smma_lo_01556
		Solve a problem with extra information (addition).	smma_lo_01558
		Solve a subtraction problem in context (two-digit minuends, one-digit subtrahends, no regrouping).	smma_lo_01560

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.2.5	Solve real-world and mathematical addition and subtraction problems involving whole numbers up to 2 digits.	Solve a subtraction problem involving coins to find how much is left (two-digit numbers, no regrouping).	smma_lo_01561
		Solve a subtraction problem to find a person's age (minuends 1 to 99, subtrahends 1 to 9, no regrouping).	smma_lo_01563
		Solve an addition problem in context (extra information, sums to 50, no regrouping).	smma_lo_01567
		Solve a subtraction problem in context (extra information, minuends 2 to 99, no regrouping).	smma_lo_01581
		Solve an addition problem in context (four addends, sums 0 to 25).	smma_lo_01587
2.N.3.1	Identify the parts of a set and area that represent fractions for halves, thirds, and fourths.	Identify a model that represents a fraction (halves, thirds, fourths).	smma_lo_00404
		Identify a fraction that represents a model (halves, thirds, fourths).	smma_lo_00405
		Draw one to two segments to divide a figure into two to four congruent parts.	smma_lo_00640
		Identify the set of shapes that represents a fraction (halves, thirds, fourths).	smma_lo_00406
		Identify the figure showing a fractional part shaded (halves, thirds, fourths).	smma_lo_00409

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OK Standard	OK Standard Text	Item Description	Item ID
2.N.3.1	Identify the parts of a set and area that represent fractions for halves, thirds, and fourths.	Identify the fraction representing a shaded region (halves, thirds, fourths).	smma_lo_00410
		Identify the figure showing the fraction of a set shaded (halves, thirds, fourths).	smma_lo_00413
		Identify the fraction representing shaded items in a set (halves, thirds, fourths).	smma_lo_00414
		Identify a fractional portion of a set (halves, thirds, fourths).	smma_lo_00415
		Count the fractional parts and total number of parts in a set (halves, thirds, fourths).	smma_lo_00412
		Count shaded parts and the total number of parts (halves to eighths).	smma_lo_00419
		Count the shaded and total number of elements in a set (halves to eighths).	smma_lo_00423
		Identify the picture that shows one number is one-half of another number.	smma_lo_00418
2.N.4.1	Determine the value of a collection(s) of coins up to one dollar using the cent symbol.	Enter the amount of money shown (1 to 5 cents in pennies).	smma_lo_00699
		Enter the amount of money shown (6 to 9 cents in pennies).	smma_lo_00704
		Enter the amount of money shown (11 to 50 cents in pennies and dimes).	smma_lo_00715
		Enter the amount of money shown (10 to 19 cents in pennies, nickels, and dimes).	smma_lo_00722
		Determine the number of cents in 1 to 100 pennies, 1 to 20 nickels, or 1 to 10 dimes.	smma_lo_00143
		Find equivalence of nickels and dimes (1 to 5 dimes).	smma_lo_00738
		Identify the given amount of money in coins (5 to 50 cents in nickels and dimes).	smma_lo_00740
		Enter the amount of money shown (10 to 99 cents).	smma_lo_00760
		Solve an addition problem involving money (sums 3 to 9 cents).	smma_lo_01543
		Solve a subtraction problem involving coins (two-digit numbers, no regrouping).	smma_lo_01579
		Make a picture to solve a multiplication problem involving total cost (2 to 5 items, 5, 10, or 15 cents each).	smma_lo_01584
		Identify the coin equivalent to 5, 10, or 25 pennies.	smma_lo_00727
		2.N.4.2	Use a combination of coins to represent a given amount of money up to one dollar.
Show the given amount of money in coins (25 to 90 cents in pennies, nickels, dimes, and quarters).	smma_lo_00778		
Solve a multiplication problem in context with extra information.	smma_lo_01589		

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OK Standard	OK Standard Text	Item Description	Item ID
3.A.1.1	Create, describe, and extend patterns involving addition, subtraction, or multiplication to solve problems in a variety of contexts.	Find the missing two-digit number in a sequence of odd or even numbers.	smma_lo_01002
		Determine the number of dollar bills needed to buy three to five items).	smma_lo_01623
		Look for a pattern to solve a problem.	smma_lo_01276
		Identify the rule for an iterative pattern.	smma_lo_01840
		Extend an iterative pattern.	smma_lo_01754
3.A.1.2	Describe the rule (single operation) for a pattern from an input/output table or function machine involving addition, subtraction, or multiplication.	Identify the addition or subtraction rule of the function.	smma_lo_01682
3.A.1.3	Explore and develop visual representations of growing geometric patterns and construct the next steps.	Identify the missing geometric figure in a 1-2-1-2 pattern.	smma_lo_00591
		Extend a geometric pattern.	smma_lo_01691
		Extend a 1-2-1-2 pattern of geometric figures.	smma_lo_00520
		Extend a 1-1-2-2 pattern of geometric figures.	smma_lo_00522
		Match patterns of geometric figures.	smma_lo_00539
		Extend a 1-1-2 or 1-2-2 pattern of congruent shapes.	smma_lo_00558
		Extend a 1-2-3 pattern of similar figures.	smma_lo_00560
		Extend a 1-2-3 pattern of geometric figures.	smma_lo_00585
		R: Extend a 1-2-1-2 pattern of pictures.	smma_lo_00519
		R: Extend a 1-1-2-2 pattern of pictures.	smma_lo_00521
		R: Extend a 1-2-2 pattern of pictures.	smma_lo_00556
		R: Identify the missing picture in a 1-2-3-1-2-3 pattern.	smma_lo_00607
3.A.2.1	Find unknowns represented by symbols in arithmetic problems by solving one-step open sentences (equations) and other problems involving addition, subtraction, and multiplication. Generate real-world situations to represent number sentences.	Find the missing addend in a number sentence (a multiple of 10 and a one-digit addend, sums 11 to 99, no regrouping).	smma_lo_00050
		Solve for the unknown in an addition equation (addends and sums less than 16).	smma_lo_01656
		Use a picture to solve a missing addend problem (sums 2 to 6).	smma_lo_01232
		Solve a problem in context by finding a missing addend (sums 2 to 5).	smma_lo_01546; smma_lo_01550
		Find the missing addend in a number sentence (three addends, sums 1 to 9).	smma_lo_00052
		Find the missing addend in a number sentence (three addends, sums 10 to 19).	smma_lo_00066
		Solve a subtraction problem by finding the missing addend.	smma_lo_02023
		Identify the missing number (addend or sum) in an addition equation, for numbers	smma_lo_02010

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OK Standard	OK Standard Text	Item Description	Item ID
3.A.2.1	Find unknowns represented by symbols in arithmetic problems by solving one-step open sentences (equations) and other problems involving addition, subtraction, and multiplication. Generate real-world situations to represent number sentences.	Find the missing addend in a number sentence. (sums 2 to 9)	smma_lo_00037
		Find the missing addend in a number sentence (sums 10 to 18).	smma_lo_00048
		Solve for a or b in $a + b = c$ (sums 0 to 9).	smma_lo_00330
		Solve for a or b in $a - b = c$ differences 0 to 9).	smma_lo_00331
		Solve for a or b in $a + b = c$ (sums 10 to 18).	smma_lo_00332
		Solve for a or b in $a - b = c$ (differences 0 to 18).	smma_lo_00333
		Identify a missing number in an addition and subtraction fact family.	smma_lo_01035
		Find the missing subtrahend in a subtraction number sentence (minuends 0 to 9).	smma_lo_01432
		Find the missing minuend in a subtraction number sentence (minuends 0 to 9).	smma_lo_01440
		Find the missing subtrahend in a subtraction number sentence (minuends 10 to 14).	smma_lo_01446
		Find the missing subtrahend in a subtraction number sentence (minuends 15 to 18).	smma_lo_01449
		Find the missing minuend in a subtraction number sentence (minuends 10 to 14).	smma_lo_01451
		Find the missing minuend in a subtraction number sentence (minuends 15 to 18).	smma_lo_01455
		Find the missing subtrahend in a subtraction number sentence (minuends 11 to 19).	smma_lo_01464
		Find the missing minuend in a subtraction number sentence (minuends 11 to 19).	smma_lo_01468
		Find the missing addend in a number sentence (a one-digit and a two-digit addend, sums 10 to 99, no regrouping).	smma_lo_00070
		Find the missing addend in a number sentence (three addends, sums 20 to 27, regrouping).	smma_lo_00082
		Find the missing addend in a number sentence (two addends, sums 20 to 98, regrouping).	smma_lo_00084
		Solve for a or b in $a + b = c$ (sums 10 to 108).	smma_lo_00336
		Solve for a or b in $a + b = c$ (sums 12 to 98).	smma_lo_00341
Solve for a or b in $a - b = c$ (minuends 20 to 99, no regrouping).	smma_lo_00343		
Solve for a or b in $a - b = c$ (minuends 21 to 99, subtrahends 1 to 9, no regrouping).	smma_lo_00347		

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OK Standard	OK Standard Text	Item Description	Item ID
3.A.2.1	Find unknowns represented by symbols in arithmetic problems by solving one-step open sentences (equations) and other problems involving addition, subtraction, and multiplication. Generate real-world situations to represent number sentences.	Find the missing subtrahend in a subtraction number sentence (minuends 21 to 99).	smma_lo_01470
		Find the missing minuend in a number sentence (minuends 21 to 99).	smma_lo_01478
		Find the missing subtrahend in a number sentence (minuends 10 to 99).	smma_lo_01480
		Find the missing minuend in a subtraction number sentence (minuends 10 to 99, no regrouping).	smma_lo_01486
		Find the missing minuend in a subtraction number sentence (minuends 20-98, subtrahends 11-89)	smma_lo_01491
		Find the missing addend in a number sentence (multiples of 10, sums 100 to 180).	smma_lo_00074
		Find the missing addend in a number sentence (two addends, sums 100 to 199, regrouping), given horizontally.	smma_lo_00086
		Find the missing addend in an number sentence (a two-digit and a three-digit addend, multiples of 10, sums 110 to 990).	smma_lo_00088
		Solve for a or b in $a + b = c$ (sums 101 to 199, no regrouping).	smma_lo_00345
		Solve a one-step equation (addition, sums to 100).	smma_lo_01686
		Solve a problem in context by finding a missing addend (three addends, sums to	smma_lo_01574
		Identify the missing number (minuend, subtrahend, or difference) in a subtraction equation, for numbers 20 and less.	smma_lo_02014
		Identify the missing information needed to solve a multiplication problem in context; then solve the problem.	smma_lo_01283
		Solve for a or b in $a \times b = c$ (products $1 \times 2$ to $5 \times 9$ ).	smma_lo_00351
		Find the missing factor (products to $5 \times 5$ ).	smma_lo_00856; smma_lo_00858
		Find the missing factor (products $1 \times 6$ to $5 \times 9$ ).	smma_lo_00860; smma_lo_00862
		Find the missing factor (products $1 \times 6$ to $9 \times 5$ ).	smma_lo_00864
		Find the missing factor (products $6 \times 1$ to $9 \times 5$ ).	smma_lo_00866
		Find the missing factor (products $6 \times 6$ to $9 \times 9$ ).	smma_lo_00873; smma_lo_00877
		Find the missing factor (products $2 \times 2$ to $12 \times 12$ ).	smma_lo_00881
Find the missing factor (products $20 \times 11$ to $90 \times 99$ , multiples of 10).	smma_lo_00891		

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OK Standard	OK Standard Text	Item Description	Item ID
3.A.2.1	Find unknowns represented by symbols in arithmetic problems	Solve for $c$ in $a \times b = c$ (products $1 \times 2$ to $5 \times 9$ ).	smma_lo_00346
		Solve for $c$ in $a \times b = c$ (products $6 \times 2$ to $9 \times 12$ ).	smma_lo_00353
		Solve for $a$ , $b$ , or $c$ in $a + b + c = d$ (sums 10 to 19).	smma_lo_00335
		Solve for $d$ in $a + b + c = d$ (one-digit addends, sums 20 to 27).	smma_lo_00339
		Identify the missing information needed to solve a two-step problem; then solve the problem.	smma_lo_01274
3.A.2.2	Recognize, represent and apply the number properties (commutative, identity, and associative properties of addition and multiplication) using models and manipulatives to solve problems.	Apply the Associative Property of Addition to add three numbers.	smma_lo_02135
		Use the Associative Property of Addition to add two numbers by regrouping the numbers into a ten and some ones.	smma_lo_02022
		Apply the Associative Property of Multiplication as a strategy to multiply whole	smma_lo_02037
		Use the commutative and associative properties of addition to find the missing number.	smma_lo_01090
3.D.1.1	Summarize and construct a data set with multiple categories using a frequency table, line plot, pictograph, and/or bar graph with scaled intervals.	Make a pictograph from a set of data.	smma_lo_00146
		Create a bar graph using data from a chart of values.	smma_lo_01696
		Create a bar graph.	smma_lo_01769
3.D.1.2	Solve one- and two-step problems using categorical data represented with a frequency table, pictograph, or bar graph with scaled intervals.	Complete and interpret a pictograph (partial pictures included).	smma_lo_01207
		Solve an addition problem using data in a table (sums 100 to 198).	smma_lo_01595
		Identify the best estimate for a sum using data in a table (three- and four-digit	smma_lo_01620
3.GM.1.1	Sort three-dimensional shapes based on attributes.	Identify matching congruent geometric solids.	smma_lo_00567
3.GM.1.2	Build a three-dimensional figure using unit cubes when picture/shape is shown.	Identify a unit cube and what attribute it is used to measure.	smma_lo_02041
3.GM.1.3	Classify angles as acute, right, obtuse, and straight.	Classify and sort 2D geometric figures by properties and attributes.	smma_lo_01728
		Identify right, acute, and obtuse angles in polygons.	smma_lo_00630
		Identify an angle as acute, right, or obtuse.	smma_lo_00628
		Identify acute, obtuse, and right triangles.	smma_lo_00655
		Identify all triangles of a particular class (acute, right, or obtuse).	smma_lo_01774

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OK Standard	OK Standard Text	Item Description	Item ID
3.GM.2.1	Find perimeter of polygon, given whole number lengths of the sides, in real-world and mathematical situations.	Find the perimeter of a rectangle (24 to 48 customary or metric units).	smma_lo_00169
		Given the length of one side of a rectangle, measure another side, and then find the perimeter.	smma_lo_00788
		Given the lengths of all sides, find the perimeter of a rectangle.	smma_lo_00821
		Count to find the perimeter (3 to 9 nonstandard units).	smma_lo_00708
		Identify the shape with the greater perimeter (3 to 11 nonstandard units).	smma_lo_00734
		Find the perimeter of a figure (3 to 10 nonstandard units).	smma_lo_00757
3.GM.2.2	Develop and use formulas to determine the area of rectangles. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns.	Multiply side lengths to find the area of a rectangle in a real-world context; use area to represent a whole-number product by arranging tiles in a rectangle.	smma_lo_02030
		Find the area of a rectangle (5 to 25 square centimeters).	smma_lo_00773
		Find the area of a rectangle by tiling it; complete an equation to show that the area is the same as would be found by multiplying the side lengths.	smma_lo_02029
		Find the area of a rectangle (36 to 144 customary or metric square units).	smma_lo_00173
		Identify rectangles that have equal areas, but different dimensions.	smma_lo_00823
		Find the area of a rectangle using a formula.	smma_lo_00810
3.GM.2.5	Using common benchmarks, estimate the lengths (customary and metric) of a variety of objects	Identify the reasonable length of an object (inches, feet, and yards).	smma_lo_00780
		Identify an object given the estimated height and width in customary units.	smma_lo_00728
3.GM.2.8	Find the area of two-dimensional figures by counting total number of same size unit squares that fill the shape without gaps or overlaps.	Estimate the area of a figure on a grid (3 to 11 square units).	smma_lo_00808
		Identify a unit square and what attribute it is used to measure.	smma_lo_02027
		Find the area of a plane figure made up of square units and halves of square units.	smma_lo_02028
		Find the sum of the areas of two figures (sums 3 to 8, nonstandard units).	smma_lo_00752
		Identify the figure in a set with the least or greatest area (figures are made up of	smma_lo_00776
		Count squares and half squares to find the area of a figure in square centimeters.	smma_lo_00783
		Using a grid, find the area of a simple figure (8 to 60 nonstandard units).	smma_lo_00786
		Identify a figure with a given area on a geoboard (4 to 15 square units).	smma_lo_00802

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OK Standard	OK Standard Text	Item Description	Item ID
3.GM.2.8	Find the area of two-dimensional figures by counting total number of same size unit squares that fill the shape without gaps or overlaps.	Find the area of an irregular figure displayed on a grid (12 to 50 square units).	smma_lo_01280
		Tile a rectangle to find its area; represent the area of the rectangle in two different ways (length times width and the sum of the areas of two smaller rectangles).	smma_lo_02031
3.GM.3.1	Read and write time to the nearest 5-minute (analog and digital).	Identify another way to state the time (minutes before or after the hour).	smma_lo_00779
		Match digital times with descriptions (e.g., quarter to or quarter past).	smma_lo_00806
		Set time to 5-minute intervals using digital and analog clocks.	smma_lo_00744
3.GM.3.2	Determine the solutions to problems involving addition and subtraction of time in intervals of 5 minutes, up to one hour, using pictorial models, number line diagrams, or other tools.	Compare the difference of two times to a given time (1 to 24 hours, across 12	smma_lo_00155
		Find the time one to five hours before or after a given time (across 12 o'clock).	smma_lo_00162
		Find the time one to twelve hours and ten to fifty-five minutes from a starting time.	smma_lo_00175
		Show time 1 to 11 hours and 5 to 55 minutes before or after the time shown (alog and digital clocks).	smma_lo_00775
		Find the time 5 to 50 minutes after the time shown (alog clock).	smma_lo_00798
		Show time 1 to 11 hours and 5 to 55 minutes before or after the time shown (analog and digital clocks).	smma_lo_02155
3.N.1.1	Read, write, discuss, and represent whole numbers up to 10,000. Representations may include numerals, expressions with operations, words, pictures, number lines, and manipulatives.	Enter the number for a word name (1000 to 9999).	smma_lo_01065
		Find a missing number for a point on a number line (two-digit).	smma_lo_00996
		Enter a number on a partially numbered number line (100 to 999).	smma_lo_01037
3.N.1.2	Use place value to describe whole numbers between 1,000 and 10,000 in terms of ten thousands, thousands, hundreds, tens and ones, including expanded form.	Identify a number with a given digit in the ones, tens, or hundreds place.	smma_lo_01014
		Identify a number with a given digit in the ones, tens, hundreds, or thousands place.	smma_lo_01033
		Identify the value of a given digit in a four-digit number.	smma_lo_01062
		Identify the expanded notation of a four-digit number.	smma_lo_01038
		Find a number equal to 1 to 9 thousands, 0 to 9 hundreds, 0 to 9 tens, and 0 to 9 ones.	smma_lo_01051

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.1.4	Use place value to compare and order whole numbers up to 10,000, using comparative language, numbers, and symbols.	Identify a two-digit number, model, or expression that has a different value.	smma_lo_00991
		Identify the number, model, word name, or expanded notation that has a different value (three-digit).	smma_lo_01018
		Compare numbers (1,000 to 9,999).	smma_lo_01039
		Identify the multiple of 5 that is closest to a given number.	smma_lo_01005
		Identify the multiple of 5 that is closer to a number (25 to 94).	smma_lo_01006
3.N.2.1	Represent multiplication facts by using a variety of approaches, such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line and skip counting.	Find the missing numbers on a number line, counting by 3s, 4s, 5, etc., to 9s.	smma_lo_01034
		Use repeated addition to multiply (products $2 \times 2$ to $5 \times 5$ ).	smma_lo_00852
		Solve addition problems with doubles as prelude to multiplication.	smma_lo_00853
		Solve addition and multiplication problems (products $2 \times 6$ to $2 \times 9$ ).	smma_lo_00854
		Solve a multiplication problem in context (counting feedback, products $2 \times 2$ to $5 \times$	smma_lo_01572
		Use partial sums and arrays to solve a two-digit by a one-digit multiplication problem.	smma_lo_01716
		Identify four arrays for a given product (products 6 to 30).	smma_lo_01858
		Solve a multiplication problem in context (repeated addition feedback, products $2 \times 2$ to $5 \times 5$ ).	smma_lo_01578
		Create arrays for a given product (products 6 to 30).	smma_lo_01859
		Identify equivalent arrays with different factors (two-digit factors).	smma_lo_01733
		Use an area model to solve a multiplication problem (two-digit factors).	smma_lo_01734
3.N.2.2	Demonstrate fluency of multiplication facts with factors up to 10.	Multiply whole numbers (products to $5 \times 5$ ).	smma_lo_00855
		Multiply two one-digit numbers (displayed horizontally (products $1 \times 6$ to $5 \times 9$ ).	smma_lo_00859
		Multiply two one-digit numbers (products $6 \times 1$ to $9 \times 5$ ).	smma_lo_00857
		Multiply two one-digit numbers (products $1 \times 2$ to $5 \times 5$ ).	smma_lo_00861
		Multiply two one-digit numbers (products $1 \times 6$ to $5 \times 9$ ).	smma_lo_00863

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.2.2	Demonstrate fluency of multiplication facts with factors up to 10.	Multiply two one-digit numbers (products $6 \times 2$ to $9 \times 5$ ).	smma_lo_00865
		Multiply two one-digit numbers (products $6 \times 6$ to $9 \times 9$ ).	smma_lo_00867
		Multiply two one-digit numbers displayed horizontally (products $6 \times 6$ to $9 \times 9$ ).	smma_lo_00868
3.N.2.3	Use strategies and algorithms based on knowledge of place value and equality to fluently add and subtract multi-digit numbers.	Add two addends (student choice, three-digit addends, sums 1000 to 1989,	smma_lo_01473
		Add two multiples of 100 (student choice, sums 200 to 900).	smma_lo_00046
		Add two multiples of 10 (student choice, sums 20 to 180).	smma_lo_00047
		Add two addends (student choice, two-digit addends, sums 100 to 189, regrouping 10's to 100's).	smma_lo_00053
		Add two numbers (student choice, three-digit addends, sums 200 to 999, no regrouping).	smma_lo_00058
		Add two addends (student choice, a two-digit and a three-digit addend, sums 120 to 998, regrouping).	smma_lo_00059
		Add two addends (student choice, three-digit addends, sums 200 to 998, regrouping).	smma_lo_00061
		Add two addends (student choice, a two-digit and a three-digit addend, sums 100 to 999, no regrouping).	smma_lo_00065
		Add two addends displayed horizontally (multiples of 10, sums 100 to 180,	smma_lo_00068
		Add two addends (student choice, three-digit addends, sums 200 to 999, no	smma_lo_00071
		Add two addends (student choice, two-digit addends, sums 100 to 198, regrouping ones and tens).	smma_lo_00075
		Add two addends (student choice, three-digit addends, sums 300 to 989, regrouping tens).	smma_lo_00081
		Add two addends (student choice, a two-digit and a three-digit addend, sums 120 to 999, regrouping ones and tens).	smma_lo_00083
		Add two addends (student choice, three-digit addends, sums 210 to 999, regrouping ones).	smma_lo_00085
		Subtract two multiples of 100 (student choice, minuends 200 to 900, subtrahends 100 to 800).	smma_lo_01447
Subtract two multiples of 10 (minuends 100 to 180, subtrahends 10 to 90).	smma_lo_01448		

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.2.3	Use strategies and algorithms based on knowledge of place value and equality to fluently add and subtract multi-digit numbers.	Subtract (student choice, minuends 110 to 199, two-digit subtrahends, no regrouping).	smma_lo_01456
		Subtract (student choice, minuends 122 to 199, subtrahends 11 to 88, no regrouping).	smma_lo_01457
		Subtract a three-digit multiple of 10 from a number (student choice, minuends 222 to 999, no regrouping).	smma_lo_01458
		Subtract (student choice, minuends and subtrahends 110 to 999).	smma_lo_01460
		Find the difference of two three-digit numbers.	smma_lo_01467
		Find the difference of two three-digit numbers (no regrouping).	smma_lo_01469
		Find the difference of two whole numbers (student choice, three-digit minuends, two-digit subtrahends, regrouping from hundreds place to tens place).	smma_lo_01471
		Find the difference of two whole numbers (student choice, three-digit minuends, two-digit subtrahends, regrouping from tens place to ones place).	smma_lo_01475
		Find the difference of two three-digit numbers (student choice, no regrouping).	smma_lo_01477
		Find the difference of two whole numbers (student choice, minuends 201 to 999, subtrahends 11 to 99, regrouping).	smma_lo_01479
		Find the difference of two whole numbers (student choice, three-digit minuends, two-digit subtrahends, regrouping from hundreds place to tens place).	smma_lo_01481
		Find the difference of two three-digit numbers (student choice, regrouping from the tens to the ones place).	smma_lo_01483
		Find the difference of two three-digit numbers (student choice, regrouping from the tens to the ones place).	smma_lo_01485
		Find the difference of two three-digit numbers (student choice, regrouping from the tens to the ones place).	smma_lo_01487
		Find the difference of two whole numbers (student choice, regrouping from tens place to ones place and hundreds place to tens	smma_lo_01489
Find the difference of two three-digit numbers (student choice, regrouping from the tens to the ones place and the hundreds to the tens place).	smma_lo_01490		

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.2.3	Use strategies and algorithms based on knowledge of place value and equality to fluently add and subtract multi-digit numbers.	Subtract a two-digit number from a three-digit number (regrouping from the tens place and hundreds place).	smma_lo_01492
		Add two addends (100 and a three-digit number, sums 200 to 900).	smma_lo_00057
		Add two addends (a two-digit and a three-digit addend, sums 111 to 899, regrouping).	smma_lo_00089
		Find the sum or difference when a two-digit number is added to or subtracted from a number (base-ten block models).	smma_lo_00989
		Find the sum or difference when ones, tens, or hundreds are added to or subtracted from a three-digit number (base-ten block models).	smma_lo_01017

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.2.4	Recognize when to round numbers and apply understanding to round numbers to the nearest ten thousand, thousand, hundred, and ten and use compatible numbers to estimate sums and differences.	Estimate the sum or difference in a money problem by rounding to the nearest 10 (two-digit sums and differences).	smma_lo_01580
		Estimate the difference of 2 four-digit numbers by rounding each to the nearest thousand.	smma_lo_01614
		Round a two-digit number to the nearest ten.	smma_lo_01028; smma_lo_01647; smma_lo_01649
		Round a three-digit number to the nearest hundred.	smma_lo_01036; smma_lo_01650; smma_lo_01651; smma_lo_01652
		Identify the best estimate for a sum of two numbers (two-digit addends, round to the nearest 10).	smma_lo_01052
		Round a two-digit or three-digit number to the nearest ten.	smma_lo_01059
		Round a three- to five-digit number to the nearest hundred.	smma_lo_01081
		Round a two-digit number to the nearest ten (hundreds chart).	smma_lo_01648
		Estimate the sum by rounding to the nearest 10 (two-digit addends).	smma_lo_01615
		Round four- to five-digit numbers in context (to the nearest thousand).	smma_lo_01106
		Identify the expression that gives the best estimate for an addition or subtraction problem in context (two-digit numbers).	smma_lo_01566
		Identify the best estimate for a quotient or a product using compatible numbers (factors less than 10 with two to four decimal places, divisors less than 10 with two to three decimal places).	smma_lo_01123
		3.N.2.5	Use addition and subtraction to solve real-world and mathematical problems involving whole numbers. Use various strategies, including the relationship between addition and subtraction, the use of technology, and the context of the problem to assess the reasonableness of results.
Add three multiples of 10 (sums 100 to 190, regrouping).	smma_lo_00051		
Add three addends (student choice, two-digit addends, sums 100 to 199, regrouping from tens to hundreds place).	smma_lo_00060		
Add three addends (student choice, one- and two-digit addends, sums 100 to 207, regrouping).	smma_lo_00092		
Add three addends (student choice, two-digit addends, sums 40 to 297, regrouping).	smma_lo_00095		
Subtract 100 from a three-digit number presented in a sentence.	smma_lo_01459		
Find the difference between two numbers (two-digit, presented as a sentence)	smma_lo_01000		

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.2.5	Use addition and subtraction to solve real-world and mathematical problems involving whole numbers. Use various strategies, including the relationship between addition and subtraction, the use of technology, and the context of the problem to assess the reasonableness of results.	Work backwards to solve a problem with a missing number.	smma_lo_01266
		Read weights from a chart; choose two weights that equal a given total (sums to 1,500).	smma_lo_01301
		Determine the reasonableness of a sum or difference (two- and three-digit numbers).	smma_lo_01259
		Work backward to solve a two-step problem.	smma_lo_01288
		Solve a problem in context that involves finding the difference of 2 three-digit numbers.	smma_lo_01610
		Add two addends (student choice, three-digit addends, sums 1000 to 1899, regrouping hundreds).	smma_lo_00077
		Add two addends (student choice, three-digit addends, sums 1010 to 1898, regrouping).	smma_lo_00091
		Add two addends (student choice, three-digit addends, sums 1000 to 1989, regrouping).	smma_lo_00093
		Add two addends (student choice, three-digit addends, sums 1000 to 1998, regrouping in all places).	smma_lo_00096
		Add three addends (student choice, a two-digit and 2 three-digit addends, sums 211 to 2097, regrouping in all places).	smma_lo_00097
		Add three addends (student choice, three-digit addends, sums 311 to 2997, regrouping in all places).	smma_lo_00098
		Add two addends (student choice, a three-digit and a four-digit addends, sums 1111 to 10998, regrouping in all places).	smma_lo_00099
		Add two addends (student choice, four-digit addends, sums 2111 to 19998, regrouping in all places).	smma_lo_00100
		Subtract a three-digit number from a four-digit number (regrouping from the tens place).	smma_lo_01493
		Subtract a three-digit number from a four-digit number (regrouping from the tens and thousands places).	smma_lo_01494; smma_lo_01495
		Subtract a three-digit number from a four-digit number (regrouping from the tens and hundreds places).	smma_lo_01496; smma_lo_01497
Subtract a three-digit number from a four-digit number (student choice, regrouping from tens, hundreds, and thousands places).	smma_lo_01499; smma_lo_01500		

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.2.5	Use addition and subtraction to solve real-world and mathematical problems involving whole numbers. Use various strategies, including the relationship between addition and subtraction, the use of technology, and the context of the problem to assess the reasonableness of results.	Subtract across zero (student choice, four-digit minuends with a 0 in the tens place, regrouping from the tens, hundreds, and thousands places).	smma_lo_01502
		Subtract across zero (student choice, four-digit minuends with a 0 in the tens place, regrouping from the tens, hundreds, and thousands places).	smma_lo_01503
		Use a picture to solve an addition problem with three addends.	smma_lo_01286
		Identify the most reasonable quantity for a context (order of magnitude differs).	smma_lo_01586
3.N.2.6	Represent division facts by using a variety of approaches, such as repeated subtraction, equal sharing and forming equal groups. fluency with multiplication and division facts with factors up to 12.	Make a picture to solve a division problem (math facts).	smma_lo_01238
		Identify a picture that represents a division problem (math facts).	smma_lo_01245
		Make a picture to solve a partitive division problem (dividends to 20).	smma_lo_01564
		Make a picture to solve a quotitive division problem (dividends to 20).	smma_lo_01565
		Identify the number sentence that represents a division problem in context (model shown, dividends to 20).	smma_lo_01569
		Use repeated subtraction to solve a division problem (dividends 4 to 24).	smma_lo_01664
		Share a set of objects equally to show a division problem (6, 7, 10, or 12 objects).	smma_lo_01663
3.N.2.7	Recognize the relationship between multiplication and division to represent and solve real-world problems.	Interpret the quotient and remainder of a division problem in context (three-digit dividends).	smma_lo_01617
3.N.2.8	Use strategies and algorithms based on knowledge of place value, equality and properties of addition and multiplication to multiply a two-digit number by a one-digit number.	Divide using basic facts (combinations to $5 \times 5$ ).	smma_lo_00280
		Divide using basic facts (combinations $2 \times 6$ to $9 \times 5$ ).	smma_lo_00282
		Divide (combinations $6 \times 6$ to $9 \times 9$ , no remainder).	smma_lo_00284
		Multiply a two-digit number by a one-digit number (student choice, vertical, products $10 \times 1$ to $12 \times 4$ ).	smma_lo_00869
		Multiply a two-digit number by a one-digit number (student choice, products $10 \times 2$ to $15 \times 5$ ).	smma_lo_00870
		Multiply a two-digit number by a one-digit number (products $10 \times 2$ to $12 \times 12$ ).	smma_lo_00871
		Multiply a two-digit number by a one-digit number (student choice, products $16 \times 2$ to $19 \times 5$ ).	smma_lo_00872
		Multiply a two-digit number by a one-digit number (student choice, products $10 \times 6$ to $15 \times 9$ ).	smma_lo_00874

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3.N.2.8	Use strategies and algorithms based on knowledge of place value, equality and properties of addition and multiplication to multiply a two-digit number by a one-digit number.	Multiply a one-digit number by a two-digit number (products $2 \times 12$ to $9 \times 12$ ).	smma_lo_00875
		Multiply a two-digit number by a one-digit number (student choice, products $16 \times 6$ to $19 \times 9$ ).	smma_lo_00876
		Multiply a two-digit number by a one-digit number (student choice, products $21 \times 2$ to $99 \times 9$ ).	smma_lo_00880
		Multiply a 1-digit number by a 2-digit number (products $13 \times 1$ to $19 \times 5$ ).	smma_lo_00894
		Multiply a 1-digit number by a 2-digit number (products $12 \times 6$ to $19 \times 9$ ).	smma_lo_00896
3.N.3.1	Read and write fractions with words and symbols.	Match the word name of a fraction to a fraction (halves, thirds, fourths).	smma_lo_00411
		Match the word name of the fraction to the fraction (halves to eighths).	smma_lo_00416
3.N.3.2	Construct fractions using length, set, and area models.	Identify the figure showing a fraction of a region shaded (halves to eighths).	smma_lo_00420
		Identify a fraction representing the shaded part (halves to eighths).	smma_lo_00421
		Enter the fraction representing the shaded amount (halves to eighths).	smma_lo_00422
		Solve a problem by finding the fractional amount of a set (halves to eighths).	smma_lo_00424
		Identify a fractional portion of a set (halves to eighths).	smma_lo_00425
		Partition shapes into equal parts.	smma_lo_02000
		Model a fraction $a/b$ by filling in $a$ out of $b$ sections in a fraction model.	smma_lo_02034
		Represent a unit fraction $1/b$ by partitioning a number line and then finding $1/b$ on it.	smma_lo_02148
3.N.3.3	Recognize unit fractions and use them to compose and decompose fractions related to the same whole. Use the numerator to describe the number of parts and the denominator to describe the number of partitions.	Describe fractions in terms of the number of parts in a whole and the relative size of those parts (e.g., larger, smaller).	smma_lo_02137
3.N.3.4	Use models and number lines to order and compare fractions that are related to the same whole.	Count the fractional parts and total number of parts in a region (halves, thirds, fourths).	smma_lo_00403
		Determine if a fraction can be simplified; simplify if possible (simplified fractions $1/2$ to $3/4$ ).	smma_lo_00452
		Find a fraction equal to 1 (halves to eighths).	smma_lo_00427

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OK Standard	OK Standard Text	Item Description	Item ID
3.N.3.4	Use models and number lines to order and compare fractions that are related to the same whole.	Using models, compare fractions (unlike denominators, numerators equal to one, halves to sixteenths).	smma_lo_00435
		Compare fractions (like denominators, thirds to sixteenths).	smma_lo_00447
		Using models, compare fractions (unlike denominators, halves to sixteenths).	smma_lo_00436
3.N.4.1	Use addition to determine the value of a collection of coins up to one dollar using the cent symbol and a collection of bills up to twenty dollars.	Identify the number of dollars and dimes that represent a given amount (\$1.10 to \$3.50).	smma_lo_00180
		Determine the value of a combination of nickels, dimes, and quarters (values to \$5.00).	smma_lo_00165
		Identify the set of coins that has greater value (16 to 75 cents in pennies, nickels, dimes, and quarters).	smma_lo_00765
		Find the total value of a group of quarters, dimes, nickels, and pennies (sums to \$1.65).	smma_lo_01611
		Solve a problem in context that involves adding three amounts expressed as dollars and cents.	smma_lo_01608
		Solve an addition problem by finding the total cost of two items (prices expressed as decimals, total < \$0.50, no regrouping).	smma_lo_00181
4.A.1.2	Describe the single operation rule for a pattern from an input/output table or function machine involving any operation of a whole number.	Determine the output of one-function machine, given an input and sample inputs and outputs (combinations $2 \times 2$ to $9 \times 9$ ).	smma_lo_00358
		Describe the relationship between two sets of numbers in a relation or function using multiplication, addition, or subtraction.	smma_lo_01653
		Describe the relationship between two sets of numbers in a relation or function using subtraction (minuends 30 to 50, subtrahends 2 to 5).	smma_lo_01654
		Describe the relationship between two sets of numbers in a relation or function using multiplication (factors 2 – 5).	smma_lo_01655
		Identify the multiplication or division rule of the function.	smma_lo_01684
		Identify the one-step rule in the relation or function (addition and subtraction).	smma_lo_01722
		Identify the one-step rule in the relation or function (multiplication and division).	smma_lo_01723

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4.A.2.2	Solve for unknowns in problems by solving open sentences (equations) and other problems involving addition, subtraction, multiplication, or division with whole numbers. Use real-world situations to represent number sentences and vice versa	Find the missing dividend or divisor (combinations $4 \times 4$ to $7 \times 7$ , no remainder).	smma_lo_00285
		Solve for a or b in $a \div b = c$ .	smma_lo_00352
		Solve for a or b in $a \div b = c$ .	smma_lo_00354
		Complete fact families with four facts (products $2 \times 3$ to $8 \times 9$ ).	smma_lo_00344
		Represent a division problem as an unknown-factor problem; then find the missing factor.	smma_lo_02039
		Find the missing information needed to solve a problem; then solve.	smma_lo_01293
		Find the missing factor (products $20 \times 20$ to $90 \times 90$ , multiples of 10).	smma_lo_00893
		Find the missing dividend or divisor (combinations $20 \_ 20$ to $90 \_ 90$ ).	smma_lo_00303
		Find the missing factor and quotient in two related number sentences (products $0.2 \times 2$ to $0.9 \times 5$ ).	smma_lo_00219
		Solve for a in $a + b = c$ or $a - b = c$ in steps (whole number sums and differences 2 to 20).	smma_lo_00379
		Solve for a in $a/b = c$ .	smma_lo_01798
		4.A.2.2	Solve for unknowns in problems by solving open sentences (equations) and other problems involving addition, subtraction, multiplication, or division with whole numbers. Use real-world situations to represent number sentences and vice versa
Finding the missing dividend or divisor (combinations $6 \times 13$ to $9 \times 19$ ).	smma_lo_00310		
Find the missing dividend or divisor in a number sentence (combinations $7 \times 13$ to $9 \times 19$ , all signs).	smma_lo_00320		
4.D.1.1	Represent data on a frequency table or line plot marked with whole numbers and fractions using appropriate titles, labels, and units.	Choose a title for a line plot and label the units.	smma_lo_01643
4.D.1.2	Use tables, bar graphs, timelines, and Venn diagrams to display data sets. The data may include benchmark fractions or decimals ( $1/4$ , $1/3$ , $1/2$ , $2/3$ , $3/4$ , 0.25, 0.50, 0.75).	Graph and interpret rainfall data in a chart.	smma_lo_01328
4.D.1.3	Solve one- and two-step problems using data in whole number, decimal, or fraction form in a frequency table and line plot.	Analyze a line plot to find the total number of items that fall at, above, or below a given value.	smma_lo_01156
		Read and interpret a line plot.	smma_lo_01764

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4.GM.1.1	Identify points, lines, line segments, rays, angles, endpoints, and parallel and perpendicular lines in various contexts.	Match the labeled angles to the correct angle notation.	smma_lo_00617
		Identify line segments in three- and four-sided figures.	smma_lo_00579
		Draw parallel, perpendicular, or intersecting lines on a grid.	smma_lo_00638
		Identify the pairs of parallel line segments in a geometric drawing.	smma_lo_00639
		Draw a line segment using a ruler (to 1/4 inch and 0.5 cm).	smma_lo_00800
		Predict whether or not lines will intersect.	smma_lo_00598
		Identify line segments.	smma_lo_00605
		Identify parallel and perpendicular streets on a map.	smma_lo_00619
4.GM.1.2	Describe, classify, and sketch quadrilaterals, including squares, rectangles, trapezoids, rhombuses, parallelograms, and kites. Recognize quadrilaterals in various contexts.	Identify parallelograms, rhombuses, and trapezoids.	smma_lo_00620
		In a set of quadrilaterals, identify all the parallelograms.	smma_lo_00621
		Identify the true statement about a relationship among quadrilaterals.	smma_lo_00656
4.GM.1.3	Given two three-dimensional shapes, identify similarities, and differences.	Identify similar three-dimensional figures.	smma_lo_00592
4.GM.2.1	measure angles in geometric figures and real-world objects with a protractor or angle ruler.	Select the appropriate ruler to measure vertical or horizontal lengths.	smma_lo_00812
		Use a protractor to measure an angle.	smma_lo_00631
		Use a protractor to measure an angle.	smma_lo_00636
		Measure an angle using the appropriate protractor.	smma_lo_00646
		Use a protractor to measure an angle in a triangle or quadrilateral; then find the sum of all the angles in the figure.	smma_lo_00650
		Select the appropriate protractor to measure an angle.	smma_lo_00644
4.GM.2.2	Find the area of polygons that can be decomposed into rectangles.	Find the area of a rectilinear figure in a context by decomposing it into two rectangles.	smma_lo_02032
4.GM.2.4	Choose an appropriate instrument and measure the length of an object to the nearest whole centimeter or quarter-inch.	Measure the length of a bar to the nearest 1/4 inch or 0.5 cm.	smma_lo_00822

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4.GM.2.5	Solve problems that deal with measurements of length, when to use liquid volumes, when to use mass, temperatures above zero and money using addition, subtraction, multiplication, or division as appropriate (customary and metric).	Read and interpret a table about temperature.	smma_lo_01646
		Select the appropriate standard unit of measurement for length, capacity, and weight (customary).	smma_lo_00729
		Select the appropriate standard unit of measurement for length, capacity, and weight (metric).	smma_lo_00767
		Find twice the amount of the money shown (products to 20).	smma_lo_01571
		Compare unlike customary units of length (inches, feet, and yards).	smma_lo_00792
		Compare unlike customary units of capacity (cups, pints, quarts, and gallons).	smma_lo_00799
		Compare unlike metric units and identify the correct statement (mm, cm, m, km; mL, L; mg, g, kg).	smma_lo_00820
		Find the change from one dollar (item costs 55 to 99 cents).	smma_lo_01598
		Find the change from one dollar for two to four items (each 10, 15, or 20 cents).	smma_lo_01609
4.GM.3.1	Determine elapsed time.	Find the elapsed time (differences from 1 to 6 hours, does not cross 12 o'clock).	smma_lo_00142
		Find the time one to five hours before or after a given time (not crossing 12 o'clock).	smma_lo_00153
		Determine elapsed time (1 to 6 hours, start and end times on the hour, can cross 12 o'clock).	smma_lo_00731
		Find the elapsed time (1 1/2 to 6 1/2 hours, start times and end times on the hour or half-hour, can cross 12 o'clock).	smma_lo_00770
		Solve a problem by identifying the time 1 to 2 hours after a given time (not crossing 12 o'clock).	smma_lo_01547
		Given the ending time and the elapsed time, find the starting time.	smma_lo_01613
		R: Set the digital clock to match the time on the analog clock to the exact minute.	smma_lo_01670
		R: Show time to the minute using digital and analog clocks.	smma_lo_00771
4.GM.3.2	Solve problems involving the conversion of one measure of time to another.	Convert hours to minutes.	smma_lo_01672
		Convert units of time (seconds, minutes, hours, days, weeks, months, and years).	smma_lo_00837

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4.N.1.1	Demonstrate fluency with multiplication and division facts with factors up to 12.	Divide using graphic models (combinations to $5 \times 5$ ).	smma_lo_00279
		Divide (combinations $2 \times 10$ to $5 \times 12$ , no remainder).	smma_lo_00286
		Divide (combinations $5 \times 9$ to $6 \times 12$ , no remainder).	smma_lo_00288
		Find the quotient (dividends $6 \div 6$ to $9 \div 9$ ).	smma_lo_00349
		Solve a one-step division problem (math facts $2 \div 2$ to $9 \div 9$ ).	smma_lo_01600
		Solve a division problem in context by rounding the quotient to the next whole number (model shown).	smma_lo_01573
		Solve a multiplication problem in context (one-, two-, and three-digit factors).	smma_lo_01604
		Identify the number that is divisible by a given factor (numbers 2 to 81, factors 2 to 9).	smma_lo_01066
4.N.1.2	Use an understanding of place value to multiply or divide a number by 10, 100 and 1,000.	Multiply whole numbers (products $20 \times 20$ to $90 \times 90$ , multiples of 10).	smma_lo_00889
		Multiply one- to five-digit whole numbers by powers of ten (10 to 100,000).	smma_lo_01078
		Multiply multiples of 10 using mental math ( $20 \times 20$ to $90 \times 90$ ).	smma_lo_00299
4.N.1.3	Multiply 3-digit by 1-digit or a 2-digit by 2-digit whole numbers, using efficient and generalizable procedures and strategies, based on knowledge of place value, including but not limited to standard algorithms.	Multiply whole numbers (multiples of 10 or 100).	smma_lo_00911
		Multiply whole numbers (student choice, 2-digit multiple of $10 \times 1$ -digit, products $20 \times 2$ to $90 \times 9$ ).	smma_lo_00878
		Multiply whole numbers (products $2 \times 20$ to $90 \times 9$ , multiples of 10).	smma_lo_00885
		Multiply a two-digit number by a two-digit number (student choice, products $10 \times 10$ to $15 \times 90$ , multiples of 10).	smma_lo_00884
		Multiply a two-digit number by a two-digit number (student choice, products $16 \times 11$ to $19 \times 99$ ).	smma_lo_00901
4.N.1.4	Estimate products of 3-digit by 1-digit or 2-digit by 2-digit whole numbers using rounding, benchmarks and place value to assess the reasonableness of results. Explore larger numbers using technology to investigate patterns.	Estimate the distance by rounding ( $d = rt$ ).	smma_lo_01606
		Estimate the product by rounding the second factor. (two-digit number to the nearest 10)	smma_lo_01603
		Estimate the product by rounding each factor (a two-digit number by a three-digit number)	smma_lo_01622

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4.N.1.5	Solve multi-step real-world and mathematical problems requiring the use of addition, subtraction, and multiplication of multi-digit whole numbers. Use various strategies, including the relationship between operations, the use of appropriate technology, and the context of the problem to assess the reasonableness of results.	Identify and solve an expression that represents a multiplication problem in context (products $3 \times 4$ to $9 \times 9$ ).	smma_lo_01590
		Identify a number sentence that can be used to solve an addition, a subtraction, or a multiplication problem (one- or two-digit).	smma_lo_01254
		Identify a number sentence that could be used to solve a multiplication problem.	smma_lo_01270
		Measure topsoil in a soil sample; calculate how long it took to form.	smma_lo_01323
		Identify and solve an expression that represents a multiplication problem in context (model shown, products to 32).	smma_lo_01570
		Identify the expression that represents a division problem in context; then solve the problem (dividends 12 to 81).	smma_lo_01605
		Solve a two-step multiplication and addition problem in context.	smma_lo_01633
		Identify an expression that can be used to solve a problem (inverse operations).	smma_lo_01275
		Solve an addition problem in context (3 three-digit addends, regrouping).	smma_lo_01597
		Make a picture to solve a multistep addition and multiplication problem in context.	smma_lo_01592
		Choose a method to solve a two-step problem.	smma_lo_01289
		Complete the steps to solve for $a$ in $a \div b = c$ (combinations $4 \times 4$ to $9 \times 10$ ).	smma_lo_00381
		Solve a one-step equation (subtraction).	smma_lo_01688
		Solve a one-step equation in context (addition, two-digit whole numbers).	smma_lo_01743
		Solve a one-step equation in context (subtraction, two-digit whole numbers).	smma_lo_01744
		Solve a two-step addition problem to find a person's age in 5 to 20 years from now.	smma_lo_01631
		Use logical reasoning to complete an addition puzzle with two three-digit addends.	smma_lo_01261
4.N.1.6	Use strategies and algorithms based on knowledge of place value, equality and properties of operations to divide 3-digit dividend by 1-digit whole number divisors. (e.g., mental strategies, standard algorithms, partial quotients, repeated subtraction, the commutative, associative, and distributive properties).	Apply the Commutative Property of Multiplication as a strategy to multiply and divide whole numbers.	smma_lo_02036

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4.N.1.7	Determine the unknown addend or factor in equivalent and non-equivalent expressions. (e.g., $5 + 6 = 4 + ?$ , $3 \times 8 < 3 \times ?$ ).	Identify a missing number in related addition and subtraction number sentences (two-digit sums, two-digit differences).	smma_lo_01060
		Identify the missing variable of addition or subtraction equations (sums 10 to 50, minuends 10 to 50).	smma_lo_01687
4.N.2.1	Represent and rename equivalent fractions using fraction models (e.g. parts of a set, area models, fraction strips, number lines).	Model equivalent fractions; identify equivalent fractions on a number line.	smma_lo_02035
		Using models, find equivalent fractions (halves to twelfths).	smma_lo_00433
		Identify two equivalent fractions for $1/2$ .	smma_lo_01708
		Find the missing numerator or denominator in an equivalent fraction (simplified fractions $1/2$ to $3/4$ ).	smma_lo_00451
		Find the missing numerator or denominator in an equivalent fraction (simplified fractions $1/2$ to $7/8$ ).	smma_lo_00453
		Find an equivalent fraction of a simplified fraction (simplified fractions $1/2$ to $8/9$ ).	smma_lo_00457
		Find three equivalent fractions (simplified fractions $1/2$ to $8/9$ ).	smma_lo_00458
		Generate a table of equivalent fractions for a fraction in simplest form.	smma_lo_01791
		Generate a table of equivalent fractions for a fraction not in simplest form.	smma_lo_01792
		Identify the fraction equivalent to the given fraction.	smma_lo_01793
		Use addition to find an equivalent fraction for $1/2$ .	smma_lo_01706
4.N.2.4	Use fraction models to add and subtract fractions with like denominators in real-world and mathematical situations.	Express a fraction with denominator 10 as an equivalent fraction with denominator 100. Then, add that fraction to another fraction with denominator 100.	smma_lo_02007
		Using models, add fractions, no simplifying (like denominators, thirds to eighths).	smma_lo_00441
		Using models, subtract fractions, no simplifying (like denominators, halves to eighths).	smma_lo_00442
		Add fractions with like denominators (no simplifying).	smma_lo_01709
		Use a model and an equation to solve word problems involving the addition of fractions with like denominators.	smma_lo_02004
		Use a model and an equation to solve word problems involving the subtraction of fractions with like denominators.	smma_lo_02016

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4.N.2.5	Represent tenths and hundredths with concrete models, making connections between fractions and decimals.	Match a decimal number to a model (thousandths).	smma_lo_00242
4.N.2.6	Represent, read and write decimals up to at least the hundredths place in a variety of contexts including money.	Match the word name with the decimal number (0.10 to 9.99).	smma_lo_00204
		Match a decimal number to its word name (to thousandths).	smma_lo_00227
		Write the value of a set of dimes in dollar form (\$1.10 to \$3.90).	smma_lo_00183
		Show a decimal money amount in dollars and coins (\$1.00 to \$5.00).	smma_lo_00774
		Write the value of a set of coins as a decimal amount (\$1.00 to \$3.20).	smma_lo_00784
		Identify the place and the value of a digit in a number; for that value, identify the number 10 times as much and the number 1/10 as much.	smma_lo_02045
		Identify the decimal number with a 0 to 9 in the tenths or hundredths place.	smma_lo_00202
4.N.2.7	Compare and order decimals and whole numbers using place value, a number line and models such as grids and base 10 blocks.	Find the missing decimal number on a number line (tenths, 0.1 to 0.9).	smma_lo_00188
		Compare decimal numbers (0.1 to 9.9).	smma_lo_00191
		Order three decimal numbers (tenths to hundredths).	smma_lo_00218
		Compare two decimal numbers (10.01 to 99.99).	smma_lo_00216
		Enter a decimal number on a number line (1.11 to 9.89).	smma_lo_00213
		Find the missing decimal number on a number line (1.0 to 9.89).	smma_lo_00215
		Compare decimal numbers (to thousandths).	smma_lo_00225
		Identify a list of decimal numbers ordered from least to greatest.	smma_lo_01103
		Find the missing decimal number in a pattern (addition).	smma_lo_00253
		Find a decimal number that is either greater than or less than two decimal numbers.	smma_lo_01118
		R: Identify the place value of a digit in a decimal number (tenths to ten thousandths).	smma_lo_00241
		R: Enter a decimal number in a place-value chart (tenths to thousandths).	smma_lo_01089

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4.N.3.1	Given a total cost (whole dollars up to \$20 or coins) and amount paid (whole dollars up to \$20 or coins), find the change required in a variety of ways. Limited to whole dollars up to \$20 or sets of coins.	Make a picture to find the change received from a purchase (change back from \$1.00).	smma_lo_01583
5.A.1.1	Use tables and rules of up to two operations to describe patterns of change and make predictions and generalizations about real-world and mathematical problems.	Read and interpret a table.	smma_lo_01695
		Identify an expression to describe the pattern generated by a table.	smma_lo_01741
		Identify an expression to describe the pattern generated by a table.	smma_lo_01742
		Identify a two-step expression to describe the pattern generated by a table (input = 100).	smma_lo_01752
		Identify a two-step expression to describe the pattern generated by a table (input = 1000).	smma_lo_01753
		Complete an input/output table and identify the algebraic equation that describes the one-step rule.	smma_lo_01806
		Complete an input/output table and identify the algebraic equation that describes the two-step rule.	smma_lo_01807
5.A.1.2	Use a rule or table to represent ordered pairs of whole numbers and graph these ordered pairs on a coordinate plane, identifying the origin and axes in relation to the coordinates.	Identify a point on a grid given an ordered pair, or identify the ordered pair for a point shown on the grid.	smma_lo_01057
		Find the coordinates for a point on a grid.	smma_lo_01077
		Identify a point on a coordinate grid given the ordered pair.	smma_lo_01092
		Graph a point on a coordinate grid (Quadrant I).	smma_lo_01735
		Graph a set of ordered pairs from a table on a coordinate plane (Quadrant I).	smma_lo_01808; smma_lo_01809
		Complete an input/output table given a two-step rule; then plot the ordered pairs on coordinate grid.	smma_lo_01758
		Make a table and a graph when given a rule in the form $y = ax$ or $y = x + a$ .	smma_lo_02139
		Graph a set of ordered pairs from a table on a coordinate plane.	smma_lo_01810
		Graph points on a coordinate plane based on a real-world context.	smma_lo_02112
		Complete an input/output table given a one-step rule; then plot the ordered pairs on a coordinate grid.	smma_lo_01757

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5.A.2.1	Generate equivalent numerical expressions and solve problems involving whole numbers by applying the commutative, associative, and distributive properties and order of operations (no exponents).	Apply the Distributive Property as a strategy to multiply whole numbers.	smma_lo_02038
		Identify an equivalent expression for $a \times (b + c)$ with variables.	smma_lo_00129
5.A.2.2	Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.	Determine whether the given values for $x$ and $y$ satisfy $y = ax + b$ .	smma_lo_00398
5.A.2.3	Evaluate expressions involving variables when values for the variables are given.	Given the value for the variable, evaluate an addition expression (sums 4 to 12).	smma_lo_01683
		Evaluate an expression with variables using substitution and a value chart (addition, sums to 18).	smma_lo_01685
		Evaluate an expression within a context (multiplication).	smma_lo_01740
5.D.1.1	Find the measures of central tendency (mean, median, or mode) and range of a set of data. Understand that the mean is a "leveling out" or central balance point of the data.	Identify the most frequent value (mode) using a line plot.	smma_lo_01164
		Find the average (mean) of 3 numbers.	smma_lo_00151
		Determine a student's grade point average based on five grades.	smma_lo_00179
		Determine the average (mean) of a data set of three to five customary weights or metric masses.	smma_lo_00836
		Find the range of a set of data.	smma_lo_01166
		Identify the median of a data set with an odd number of items.	smma_lo_01168
		Identify the median of a data set with an even number of items and the two middle values are not equal.	smma_lo_01170
		Determine the average (mean), median, mode, and range.	smma_lo_01210
		Determine the mode of a data set.	smma_lo_01719
		Determine the median of a data set.	smma_lo_01726
		Determine the mean of a data set.	smma_lo_01727
		Determine the range of a set of data.	smma_lo_01766
		Determine the median of a set of data.	smma_lo_01768
		Identify the median of a data set with an even number of items and the two middle values are equal.	smma_lo_01169
		Solve a problem in context by finding the average (mean) of three to seven numbers.	smma_lo_01619
Determine the mode of a set of data.	smma_lo_01765		
R: Identify two numbers within a range (1 to 9), number line in feedback.	smma_lo_00963		

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OK Standard	OK Standard Text	Item Description	Item ID
5.D.1.2	Create and analyze line and double-bar graphs with whole numbers, fractions, and decimals increments.	Find the amount of increase or decrease between two points in a line graph.	smma_lo_01178
		Read and interpret a line graph.	smma_lo_01206
		Create a line graph using data from a table.	smma_lo_01697
		Create a line graph.	smma_lo_01771
		Interpret a line graph with time and temperature data, and add a point to line graph.	smma_lo_01324
		Given the survival needs for a bug, interpret a line graph with time and temperature data.	smma_lo_01325
5.GM.1.1	Describe, classify and construct triangles, including equilateral, right, scalene, and isosceles triangles. Recognize triangles in various contexts.	Identify equilateral, isosceles, and scalene triangles.	smma_lo_00658
5.GM.1.2	Describe and classify three-dimensional figures including cubes, rectangular prisms, and pyramids by the number of edges, faces or vertices as well as the shapes of faces.	Identify the set of faces for a geometric solid.	smma_lo_00664
		Identify faces, edges, and vertices of solids.	smma_lo_00632
		Count the vertices, edges, or faces of a prism or pyramid.	smma_lo_00643
		Complete sentences about bases, faces, edges, and vertices of geometric solids.	smma_lo_00652
		Classify and sort three-dimensional solids based on attributes using formal geometric language.	smma_lo_02138
5.GM.1.3	Recognize and draw a net for a three-dimensional figure (e.g., cubes, rectangular prisms, pyramids).	Identify the net for a geometric solid.	smma_lo_00675
		Identify the net that forms a three-dimensional solid.	smma_lo_01772
5.GM.2.1	Recognize that the volume of rectangular prisms can be determined by the number of cubes ( $n$ ) and by the product of the dimensions of the prism ( $a \times b \times c = n$ ). Know that rectangular prisms of different dimensions ( $p, q, \text{ and } r$ ) can have the same volume if $a \times b \times c = p \times q \times r = n$ .	Compute the volume of right rectangular prisms using formulas.	smma_lo_02043

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5.GM.2.2	Recognize that the surface area of a three-dimensional figure with rectangular faces with whole numbered edges can be found by finding the area of each component of the net of that figure. Know that three-dimensional shapes of different dimensions can have the same surface area.	Generalize a figure for surface area, and then use that formula to find the surface area of a given figure.	smma_lo_02144
5.GM.2.3	Find the perimeter of polygons and create arguments for reasonable values for the perimeter of shapes that include curves.	Given a perimeter, mark equilateral polygons with the same side measures.	smma_lo_00849
		Identify the expression for the perimeter of a figure.	smma_lo_00818
		Find the perimeter of a polygon (decimal numbers, metric units).	smma_lo_00805; smma_lo_00790
5.GM.3.1	Measure and compare angles according to size.	Identify the better estimate for an angle measure.	smma_lo_00657
		Identify congruent angles.	smma_lo_00637
		Match the corresponding sides or angles of two similar figures.	smma_lo_00673
5.GM.3.3	Recognize and use the relationship between inches, feet, and yards to measure and compare objects.	Express yards and feet as an equivalent number of feet, or feet and inches as an equivalent number of inches.	smma_lo_00166
5.N.1.1	Estimate solutions to division problems in order to assess the reasonableness of results.	Estimate the quotient to the nearest ten (three-digit dividends, one-digit divisors).	smma_lo_00314
		Identify a reasonable answer for a division problem.	smma_lo_00246
		Choose the best estimate for a long division problem (three-digit dividends, two-digit divisors).	smma_lo_00315
		Identify the best estimate for a quotient (decimal divided by a whole number).	smma_lo_00238
		Estimate the quotient in a long division problem (three-digit dividend, two-digit divisor, remainder).	smma_lo_00301
5.N.1.2	Divide multi-digit numbers, by one- and two-digit divisors, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms.	Divide (combinations $2 \times 13$ to $5 \times 19$ , no remainder).	smma_lo_00305
		Find the quotient of b divided by a (combinations $6 \times 13$ to $9 \times 19$ ).	smma_lo_00312
		Solve a division problem in context (remainder).	smma_lo_01616
		Divide (combinations $2 \times 20$ to $5 \times 90$ , three-digit dividend, one or two-digit divisor, no remainder).	smma_lo_00291
		Divide (combinations $6 \times 20$ to $9 \times 90$ ).	smma_lo_00293

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5.N.1.4	Solve real-world and mathematical problems requiring addition, subtraction, multiplication, and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.	Multiply by a multiple of 10 (student choice, $10,000 \times 20$ to $99,999 \times 90$ ).	smma_lo_00908
		Make a picture to solve a multiplication problem (basic facts).	smma_lo_01237
		Identify a picture that represents a multiplication problem (basic facts).	smma_lo_01246
		Identify the method to solve a multiplication problem with extra information.	smma_lo_01267
		Identify the method to solve a division problem with extra information.	smma_lo_01268
		Find the difference of two whole numbers (student choice, four-digit numbers, regrouping from tens and hundreds places).	smma_lo_01498; smma_lo_01501
		Find the difference of two whole numbers (student choice, four-digit numbers, regrouping from tens, hundreds, and thousands places).	smma_lo_01504
		Multiply a three-digit number by a one-digit number (student choice, products $100 \times 2$ to $990 \times 9$ , multiples of 10).	smma_lo_00882
		Multiply whole numbers (student choice, products $101 \times 2$ to $999 \times 9$ ).	smma_lo_00886
		Multiply a four-digit number by a one-digit number (student choice, products $1000 \times 2$ to $9999 \times 9$ ).	smma_lo_00892
		Multiply whole numbers (student choice, products $11 \times 11$ to $15 \times 99$ ).	smma_lo_00899
		Divide using the long division algorithm (one-digit divisor, no remainder).	smma_lo_00290; smma_lo_00294
		Divide using the long division algorithm (one-digit divisor, remainder).	smma_lo_00292; smma_lo_00295
		Divide using the long division algorithm (three-digit dividend, one-digit divisor, no remainder).	smma_lo_00296
		Divide using the long division algorithm (three-digit dividend, one-digit divisor, remainder).	smma_lo_00297; smma_lo_00298
		Divide using the long division algorithm (four-digit dividend, one-digit divisor, remainder).	smma_lo_00300
		Determine the number of calories in multiple servings given data in a chart.	smma_lo_01333
		Multiply whole numbers (student choice, products $100 \times 20$ to $990 \times 90$ , multiples of 10).	smma_lo_00902
Multiply whole numbers (student choice, products $21 \times 11$ to $99 \times 99$ ).	smma_lo_00903		

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5.N.1.4	Solve real-world and mathematical problems requiring addition, subtraction, multiplication, and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.	Multiply whole numbers (student choice, products $101 \times 20$ to $999 \times 90$ , multiples of 10).	smma_lo_00904
		Multiply whole numbers (student choice, products $10,000 \times 2$ to $99,999 \times 9$ ).	smma_lo_00900
		Multiply whole numbers (student choice, products $100 \times 21$ to $990 \times 90$ , multiples of 10).	smma_lo_00905
		Multiply (student choice, products $1000 \times 20$ to $9999 \times 90$ , multiples of 10).	smma_lo_00906
		Multiply whole numbers (student choice, products $101 \times 21$ to $999 \times 99$ ).	smma_lo_00907
		Multiply whole numbers (student choice, products $1000 \times 21$ to $9999 \times 99$ ).	smma_lo_00909
		Multiply whole numbers (student choice, $10,000 \times 21$ to $99,999 \times 99$ ).	smma_lo_00910
		Solve a one-step equation (division).	smma_lo_01692
		Identify related multiplication and division number sentences that can be used to solve a problem.	smma_lo_01080
		Solve a one-step equation in context (division, two-digit whole numbers).	smma_lo_01745; smma_lo_01747
		Divide using the long division algorithm (three-digit number, two-digit divisor,	smma_lo_00304
		Identify the number sentence that can be used to solve a two-step problem in	smma_lo_01297
		5.N.2.2	Represent, read and write decimals using place value to describe decimal numbers including fractional numbers as small as thousandths and whole numbers as large as millions.
Identify a number with a given digit in the ones to hundred thousands place.	smma_lo_01045		
Identify the expanded notation of a five- or six-digit number.	smma_lo_01046		
Enter a number in a place-value chart (10,000 to 999,999).	smma_lo_01070		

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5.N.2.3	Compare and order fractions and decimals, including mixed numbers and fractions less than one, and locate on a number line.	Compare decimals (to hundredths) to benchmark fractions.	smma_lo_00209
		Enter the missing fraction on a number line (halves to eighths).	smma_lo_00430
		Identify a fraction for a given point on a number line divided into tenths, twelfths, or	smma_lo_00431
		Using a number line, compare fractions (like denominators, halves to sixteenths).	smma_lo_00434
		Use a model to compare two fractions (halves to eighths, unlike denominators).	smma_lo_00429
		Compare fractions to 1 on the number line (halves to eighths).	smma_lo_00432
		Using models, compare fractions (unlike denominators, halves to eighths).	smma_lo_00438
		Compare fractions to 1 (halves to sixteenths).	smma_lo_00448
		Compare fractions (unlike denominators).	smma_lo_00462
		Compare fractions (unlike denominators, to ninths).	smma_lo_00495
		5.N.2.4	Recognize and generate equivalent decimals, fractions, mixed numbers, and fractions less than one in various contexts.
Identify the figures with the equivalent fractional parts shaded.	smma_lo_00483		
Rewrite a fraction as a mixed number (halves to eighths).	smma_lo_00449		
Using a model, rewrite a mixed number as a fraction (halves to eighths).	smma_lo_00446		
Rewrite a mixed number as a fraction (fifths to ninths).	smma_lo_00450		
Match a fraction to a decimal (tenths, 0.1 to 0.9).	smma_lo_00184		
Determine the fraction and decimal that represent a model (base-ten blocks, tenths, 0.1 to 0.9).	smma_lo_00185		
Enter the decimal equivalent for a mixed number (hundredths, 100 in denominator).	smma_lo_00205		
Determine the equivalent fraction for a decimal (the denominator is a factor of 100).	smma_lo_00259		
Match a decimal number to an equivalent fraction (tenths to thousandths).	smma_lo_00224		
Determine the equivalent fractions using the least common denominator of two given fractions.	smma_lo_00494		
Identify equivalent representations of numbers.	smma_lo_01114		
Find an equivalent mixed number for a decimal (tenths to ten thousandths).	smma_lo_00255		

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5.N.2.4	Recognize and generate equivalent decimals, fractions, mixed numbers, and fractions less than one in various contexts.	Divide to convert from a fraction to a decimal equivalent.	smma_lo_00258
		Determine the equivalent decimal for a mixed number.	smma_lo_00260
		Identify the division problem that can be used to rewrite a fraction as a decimal.	smma_lo_00257
5.N.3.1	Estimate sums and differences of fractions with like and unlike denominators, mixed numbers, and decimals to assess the reasonableness of the results.	Identify the difference when a fraction is subtracted from 1 (fourths to twelfths).	smma_lo_00445
5.N.3.2	Illustrate addition and subtraction of fractions with like and unlike denominators, mixed numbers, and decimals using a variety of representations (e.g., fraction strips, area models, number lines, fraction rods).	Model a division word problem that results in a rational quotient; then express the word problem with an equation.	smma_lo_02047
5.N.3.3	Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals, using efficient and generalizable procedures, including but not limited to standard algorithms in order to solve real-world and mathematical problems including those involving money, measurement, geometry, and data.	Measure the amount of rainfall for the week; then complete the chart and determine the total amount of rainfall for the month.	smma_lo_01327
		Solve a decimal subtraction problem in context (tenths, regrouping).	smma_lo_01599
		Add mixed numbers; no simplifying (like denominators, thirds to twelfths).	smma_lo_00460
		Subtract mixed numbers; no simplifying (like denominators, thirds to twelfths).	smma_lo_00461
		Add mixed numbers; simplify if necessary (like denominators, halves to sixteenths).	smma_lo_00463
		Add mixed numbers within a context; simplify if necessary (like denominators).	smma_lo_00480
		Subtract mixed numbers in context; simplify if necessary (like denominators).	smma_lo_00481
		Subtract mixed numbers; simplify if necessary (like denominators).	smma_lo_00485
		Add mixed numbers with like denominators in context; simplify if necessary.	smma_lo_01624
		Subtract metric length or weight measurements expressed as decimals (to tenths, difference 1.2 to 8.9, regrouping).	smma_lo_00159
		Add decimals using addition facts (sums 0.02-0.99).	smma_lo_00206
		Subtract decimals numbers (minuends and subtrahends 0.01 to 9.99).	smma_lo_00207
		Subtract money amounts (sums less than \$17.00, regrouping).	smma_lo_00208
Add or subtract decimals using mental math (sums less than 1.00, with or without regrouping).	smma_lo_00210		

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5.N.3.3	Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals, using efficient and generalizable procedures, including but not limited to standard algorithms in order to solve real-world and mathematical problems including those involving money, measurement, geometry, and data.	Align the decimal numbers in a vertical addition problem; then solve (hundredths, regrouping).	smma_lo_00211
		Align the decimal numbers in a vertical subtraction problem; then solve (hundredths, regrouping).	smma_lo_00212
		Subtract money amounts (sums less than \$50.00, regrouping).	smma_lo_00214
		Add decimal numbers using mental math (sums 1.0 to 99.8, regrouping).	smma_lo_00217
		Solve a one-step equation with decimals in context (addition and subtraction).	smma_lo_01799
		Add two decimal numbers (tenths, sums 1.0 to 2.0, regrouping).	smma_lo_00192
		Add two decimal numbers using mental math (sums 1.1 to 9.9, no regrouping).	smma_lo_00193
		Subtract decimal numbers (minuends and subtrahends 0.1 to 9.9, no regrouping).	smma_lo_00195
		Add two decimal numbers using mental math (sums 10.1 to 99.9, no regrouping).	smma_lo_00196
		Subtract decimal numbers using mental math (minuends and subtrahends 10.1 to 99.9, no regrouping).	smma_lo_00197
		Subtract decimal numbers (minuends 2.0 to 9.9, subtrahends 0.1 to 0.9, regrouping).	smma_lo_00198
		Add decimal numbers (sums less than 10.0, regrouping).	smma_lo_00199
		Add two decimal numbers (sums 1.0 to 98.9, regrouping).	smma_lo_00201
		Subtract decimal numbers (minuends and subtrahends 0.1 to 99.9, with or without regrouping).	smma_lo_00203
		Subtract a fraction from 1; simplify (halves to sixteenths).	smma_lo_00464
		Add fractions; no simplifying (unlike denominators).	smma_lo_00465; smma_lo_00467
		Subtract fractions; no simplifying (unlike denominators).	smma_lo_00466; smma_lo_00468
Add fractions; simplify if necessary (unlike denominators).	smma_lo_00471; smma_lo_00473		
Subtract fractions; simplify if necessary (unlike denominators).	smma_lo_00472; smma_lo_00474		

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5.N.3.3	Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals, using efficient and generalizable procedures, including but not limited to standard algorithms in order to solve real-world and mathematical problems including those involving money, measurement, geometry, and data.	Add mixed numbers; simplify if necessary (like denominators).	smma_lo_00484
		Add mixed numbers; simplify if necessary (unlike denominators).	smma_lo_00499; smma_lo_00504
		Subtract mixed numbers; simplify if necessary (unlike denominators).	smma_lo_00500; smma_lo_00505
		Add mixed numbers within a context; simplify if necessary (unlike denominators).	smma_lo_00509
		Subtract mixed numbers within a context; simplify if necessary (unlike denominators).	smma_lo_00510
		Add two fractional parts of whole numbers in context.	smma_lo_01640
		Subtract two fractions from a whole within a context.	smma_lo_01634
		Solve a one-step equation (fractions, addition and subtraction).	smma_lo_01868
		Align the decimal numbers for a vertical addition problem; then solve (to thousandths).	smma_lo_00226
		Align the decimal numbers for a vertical subtraction problem; then solve (to thousandths).	smma_lo_00228
		Align the decimal numbers in a vertical subtraction problem; then solve (decimals to thousandths).	smma_lo_00233
		Subtract decimals with regrouping (to ten-thousandths).	smma_lo_00243
		Add the decimal numbers provided on a data table.	smma_lo_01785
		Subtract the decimal numbers provided on a data table.	smma_lo_01786
Solve a one-step equation (fractions, addition and subtraction).	smma_lo_01848		
6.A.1.1	Plot integer- and rational-valued (limited to halves and fourths) ordered pairs as coordinates in all four quadrants and recognize the reflective relationships among coordinates that differ only by their signs.	Given two points, describe how the points are related: reflected across the x-axis, reflected across the y-axis, or reflected across both axes.	smma_lo_02108

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6.A.1.2	Represent relationships between two varying quantities involving no more than two operations with rules, graphs, and tables; translate between any two of these representations.	Generate a table of values given a one-step rule.	smma_lo_01755
		Complete a table given a two-step rule (single-digit whole numbers).	smma_lo_01750
		Complete a table given a two-step rule (whole numbers).	smma_lo_01751
		Generate a table of values given a two-step rule.	smma_lo_01756
		Generate a table of values given a rule.	smma_lo_01724
6.A.1.3	Use and evaluate variables in expressions, equations, and inequalities that arise from various contexts, including determining when or if, for a given value of the variable, an equation or inequality involving a variable is true or false.	Solve for a or b in $a \times b = c$ (products $6 \times 2$ to $9 \times 12$ ).	smma_lo_00357
		Solve for a or b in $a \div b = c$ (combinations $2 \div 10$ to $5 \div 12$ ).	smma_lo_00359
		Solve for a or b in $a \div b = c$ (combinations $6 \div 10$ to $9 \div 12$ ).	smma_lo_00361
		Solve for a or b in $a \times b = x$ (products $2 \times 10$ to $12 \times 12$ ).	smma_lo_00363
		Solve for a or b in $a \div b = c$ (combinations $6 \div 20$ to $9 \div 90$ , multiples of 10).	smma_lo_00365
		Solve for a or b in $a \times b = x$ (products $2 \times 20$ to $12 \times 90$ , multiples of 10).	smma_lo_00366
		Solve for a or b in $a + b = c$ (decimals to tenths, no regrouping).	smma_lo_00367
		Solve for a or b in $a - b = c$ (decimals to tenths, regrouping).	smma_lo_00368
		Solve for a or b in $a \times b = c$ (products from $0.2 \times 0.6$ to $0.9 \times 0.9$ ).	smma_lo_00369
		Solve for a or b in $a \div b = c$ (combinations $0.6 \div 0.6$ to $0.9 \div 0.9$ ).	smma_lo_00370
		Solve for a, b, or c in $a \div b/c = d/e$ (combinations to $12 \div 12$ ).	smma_lo_00371
		Solve for a or b in $a + b = c$ (decimals to hundredths).	smma_lo_00373
		Solve for a or b in $a - b = c$ (decimals to hundredths, regrouping).	smma_lo_00374
		Solve for a or b in $a \times b = c$ (products from $0.02 \times 0.13$ to $0.09 \times 0.19$ ).	smma_lo_00376
		Solve for a or b in $a \div b = c$ (up to 4-digit decimals).	smma_lo_00378
		Solve for x in $ax = c$ in steps (products $4 \times 4$ to $9 \times 10$ ).	smma_lo_00380
		Solve for a in $ba/c = d$ by multiplying by the reciprocal.	smma_lo_01795
		Solve one-step equations (addition and subtraction, fractions).	smma_lo_01796
		Solve for a variable in the formula for simple interest (whole numbers and decimals).	smma_lo_01805

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6.A.2.1	Generate equivalent expressions and evaluate expressions involving positive rational numbers by applying the commutative, associative, and distributive properties and order of operations to solve real-world and mathematical problems.	Evaluate an expression using the order of operations.	smma_lo_01091
		Evaluate the expression $mx + c$ or $mx - c$ .	smma_lo_01739
		Apply the properties of operations to generate equivalent expressions.	smma_lo_02059
		Identify the equivalent expression for a fraction, whole number, or a mixed numbers being divided by a fraction, a whole number, or a mixed number.	smma_lo_00511
		Evaluate the expression $-(a - b)$ , where $a$ and $b$ have values from 1 to 9.	smma_lo_01531
		Evaluate a numerical expression $(a) + (b) - (c)$ , where $a$ , $b$ , and $c$ have values from $-9$ to 9.	smma_lo_01527
6.A.3.1	Represent real-world or mathematical situations using expressions, equations and inequalities involving variables and rational numbers.	Identify the expression that is a translation of the written phrase.	smma_lo_01759
		Write expressions that record operations with numbers and variables.	smma_lo_02056
		Write an expression to represent a real-world problem, using variables to represent numbers.	smma_lo_02062
6.D.1.3	Create and analyze box and whisker plots observing how each segment contains one quarter of the data.	Find the five values (upper and lower extremes, median, and upper and lower quartiles) from a set of data that are needed to create a box-and-whiskers plot.	smma_lo_01199
		Identify box-and whiskers plot that matches a given set of data.	smma_lo_01201
		Identify data sets that match the data represented in a given box-and-whiskers plot.	smma_lo_01202
6.D.2.1	Represent possible outcomes using a probability continuum from impossible to certain.	Within the context of repeated selections without replacement from a bag containing two balls of the same color, label events as certain or impossible.	smma_lo_01141
		Within the context of selecting without replacement from a cup containing three balls, each of a different color, label a given event prior to each selection as certain, possible, or impossible.	smma_lo_01147
		Determine whether a chronological event is certain or impossible.	smma_lo_01137
		Given information about a current situation, classify a future event as being certain, possible, or impossible.	smma_lo_01139
		Create a set of colored balls whose contents are specified by whether it is certain, possible, or impossible to select a particular color.	smma_lo_01153

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6.D.2.1	Represent possible outcomes using a probability continuum from impossible to certain.	Given a graphical representation of a spinner partitioned into sectors of different sizes, each containing one of several possible pictures, label events as certain or impossible or pairs of events as more, less, or equally likely.	smma_lo_01212
6.D.2.2	Determine the sample space for a given experiment and determine which members of the sample space are related to certain events. Sample space may be determined by the use of tree diagrams, tables or pictorial representations.	Determine the arrangements that can be made with a group of two and a group of three items.	smma_lo_01718
		Given a graphical representation of two spinners, count all the possible outcomes for spinning each spinner once.	smma_lo_01665
		Determine the number of arrangements that can be made from two groups with two items.	smma_lo_01717
		Given a graphical representation of a spinner, count the number of possible outcomes and complete a list of all the outcomes.	smma_lo_01209
6.GM.1.1	Develop and use formulas for the area of squares and parallelograms using a variety of methods including but not limited to the standard algorithm.	Use a formula to find the area of a parallelogram.	smma_lo_00824
6.GM.1.2	Develop and use formulas to determine the area of triangles.	Find the area of a triangle (2 to 72 square inches).	smma_lo_00176
		Find the area of a triangle using a formula.	smma_lo_00827
6.GM.2.1	Solve problems using the relationships between the angles (vertical, complementary, and supplementary) formed by intersecting lines.	Measure complementary or supplementary angles and find the sum of the angle measures.	smma_lo_00661; smma_lo_00663
		Establish that vertical angles are congruent.	smma_lo_00670
		Find the measure of the missing angle in a diagram.	smma_lo_00674
6.GM.2.2	Develop and use the fact that the sum of the interior angles of a triangle is $180^\circ$ to determine missing angle measures in a triangle.	Solve a problem involving equal angle measures.	smma_lo_00677
		Establish that alternate interior angles are congruent for parallel lines.	smma_lo_00672

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OK Standard	OK Standard Text	Item Description	Item ID
6.GM.3.1	Estimate weights, capacities and geometric measurements using benchmarks in customary and metric measurement systems with appropriate units.	Choose the best estimate for the volume of a rectangular prism.	smma_lo_00848
6.GM.3.2	Solve problems in various real-world and mathematical contexts that require the conversion of weights, capacities, geometric measurements, and time within the same measurement systems using appropriate units.	Add metric measurements with unlike units and express the sum in terms of the smaller unit.	smma_lo_00168
		Add metric measurements with unlike units and express the sum in terms of the larger unit.	smma_lo_00172
		Compare unlike customary units of weight and identify the correct statement (ounces and pounds).	smma_lo_00801
		Convert customary units of length (inches, feet, and yards).	smma_lo_00791
		Convert customary units of capacity (cups, pints, quarts, and gallons).	smma_lo_00796
		Convert between customary units of weight (ounces and pounds).	smma_lo_00797
		Convert metric units of length (mm, cm, m, and km; whole numbers).	smma_lo_00814
6.GM.4.1	Predict, describe, and apply translations (slides), reflections (flips), and rotations (turns) to a two-dimensional figure.	Identify a figure as a slide, reflection (flip), or turn of another figure.	smma_lo_00599
		Identify a set of geometric figures that show a reflection (flip).	smma_lo_00648
		Identify a reflection, a rotation, and a translation of a geometric figure.	smma_lo_00665
		Identify a transformation as a slide, flip, or a turn.	smma_lo_01776
6.GM.4.2	Recognize that translations, reflections, and rotations preserve congruency and use them to show that two figures are congruent.	Identify congruent figures on a geoboard.	smma_lo_00606
6.GM.4.3	Use distances between two points that are either vertical or horizontal to each other (not requiring the distance formula) to solve real-world and mathematical problems about congruent two-dimensional figures.	Explain a proof of the converse of the Pythagorean Theorem.	smma_lo_02132

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OK Standard	OK Standard Text	Item Description	Item ID
6.GM.4.4	Identify and describe the line(s) of symmetry in two-dimensional shapes.	Identify the vertical line of symmetry.	smma_lo_00595
		Identify the horizontal line of symmetry.	smma_lo_00597
		Draw a vertical or horizontal line of symmetry.	smma_lo_00608
		Identify lines that are lines of symmetry.	smma_lo_00623
		Complete a symmetrical drawing.	smma_lo_00647
		Identify the lines of symmetry in an object.	smma_lo_01699
		Identify the shape with a given number of lines of symmetry.	smma_lo_01773
6.N.1.1	Represent integers with counters and on a number line and rational numbers on a number line, recognizing the concepts of opposites, direction, and magnitude; use integers and rational numbers in real-world and mathematical situations, explaining the meaning of 0 in each situation.	Read the temperature on a thermometer to nearest degree $-10$ to $10$ degrees).	smma_lo_00804
		Read and interpret data in a table to determine the wind chill temperature.	smma_lo_01314
		Read and interpret data in a table to determine the time it would take for skin to freeze.	smma_lo_01315
		Mark the point on a number line that represents a decimal number ( $0.1$ to $0.9$ ).	smma_lo_00186
		Locate the missing integer on a number line ( $-3$ to $-12$ ).	smma_lo_00101
		Subtract integers using a number line (differences $-5$ to $1$ ).	smma_lo_01505
6.N.1.2	Compare and order positive rational numbers, represented in various forms, or integers using the symbols $<$ , $>$ , and $=$ .	Compare products (products $2 \times 2$ to $9 \times 9$ ).	smma_lo_00350
		Compare quotients (combinations $2 \div 2$ to $9 \div 9$ ).	smma_lo_00355
		Order four numbers from least to greatest ( $1,000$ to $9,999$ ).	smma_lo_01040
		Order five numbers from least to greatest (three- to six-digit numbers).	smma_lo_01710
		Identify the fraction that is greater than a given fraction (unlike denominators, halves to eighths).	smma_lo_00437
		Order three fractions from least to greatest (unlike denominators, halves to twelfths).	smma_lo_00440
		Identify the greatest or least fraction in a problem (unlike denominators).	smma_lo_00482
		Identify the fraction that is between two fractions	smma_lo_00503
		Order three decimals from least to greatest (to thousandths).	smma_lo_00236
		Identify the symbol ( $<$ or $>$ ) needed to complete the inequality.	smma_lo_00254
6.N.1.3	Explain that a percent represents parts "out of 100" and ratios "to 100."	Determine the percent (100 total items).	smma_lo_01713

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OK Standard	OK Standard Text	Item Description	Item ID
6.N.1.4	Determine equivalencies among fractions, decimals, and percents. Select among these representations to solve problems.	Enter a decimal number for a mixed number (tenths, 1.1 to 9.9).	smma_lo_00187
		Determine the decimal and percent that is represented by a model (base-ten blocks, hundredths).	smma_lo_00256
		Identify decimals or fractions that are not equivalent to a given decimal or fraction.	smma_lo_01094
		Complete the equivalence table by expressing a decimal number as a fraction and a percent.	smma_lo_01820
		Complete the equivalence table by expressing a decimal number as a fraction and a percent (round answer to the nearest hundredth).	smma_lo_01821
		Complete the equivalence table by expressing a fraction as a decimal number and a percent (round answer to the nearest hundredth).	smma_lo_01822
		Express a percent as a fraction and simplify.	smma_lo_00269
		Identify a number not equivalent to four others.	smma_lo_01116
6.N.1.5	Factor whole numbers and express prime and composite numbers as a product of prime factors with exponents.	Identify the complete set of factors for a number (2 to 25).	smma_lo_01071
		Find the factors of a number and determine if the number is prime or composite (3 to 30).	smma_lo_01073
		Identify the prime factorization of a two-digit number.	smma_lo_01093
		Using a factor tree, find the prime factors of a number (2 to 32).	smma_lo_01087
		R: Identify prime and composite numbers (one- or two-digit).	smma_lo_01105
		R: Identify sets of prime and composite numbers.	smma_lo_01119
6.N.1.6	Determine the greatest common factors and least common multiples. Use common factors and multiples to calculate with fractions, find equivalent fractions, and express the sum of two-digit numbers with a common factor using the distributive property.	Determine three factors of a given number.	smma_lo_01107
		Given the prime factorization of two numbers, find the common multiple.	smma_lo_01108
		Find the greatest common factor for two to three numbers.	smma_lo_01110
		Find the least common multiple of two or three numbers.	smma_lo_01112
		Identify a common factor of two numbers (4 to 81).	smma_lo_01088
		Identify the common multiples for two to three numbers (2 to 20).	smma_lo_01096
		R: Identify numbers that are multiples of a given number.	smma_lo_01069
		R: Identify which numbers are divisible by another number (divisors 2 to 10).	smma_lo_01101

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OK Standard	OK Standard Text	Item Description	Item ID
6.N.2.2	Illustrate addition and subtraction of integers using a variety of representations.	Represent addition of integers on a number line.	smma_lo_02085
		Represent subtraction of integers on a number line.	smma_lo_02152
6.N.2.3	Add and subtract integers; use efficient and generalizable procedures including but not limited to standard algorithms.	Find the missing one-digit addend in a number sentence (positive or negative integers, sums are 0).	smma_lo_00102
		Subtract integers (minuends 0 to 10, subtrahends 1 to 10, differences negative).	smma_lo_01506
		Subtract integers (minuends 0 to 19, subtrahends 1 to 20, negative differences).	smma_lo_01507; smma_lo_01508; smma_lo_01510
		Subtract integers using a number line (differences $-5$ to $4$ ).	smma_lo_01511
		Subtract integers (minuends $-11$ to $-20$ , subtrahends $-1$ to $-10$ , negative differences).	smma_lo_01513
		Subtract integers (minuends 0 to 19, subtrahends 1 to 20, negative differences).	smma_lo_01516; smma_lo_01520; smma_lo_01525; smma_lo_01526
		Subtract integers (minuend 0, subtrahends 1 to 20).	smma_lo_01519
		Subtract integers (minuends $-10$ to 0, subtrahends $-10$ to $-1$ ).	smma_lo_01522
		Find the missing two-digit addend in a number sentence (sums are 0).	smma_lo_00103
		Find the missing two-digit addend in a number sentence (sums are 0, missing addend is first).	smma_lo_00104
		Find the missing negative addend in a number sentence (sums 1 to 8).	smma_lo_00105
		Find the missing addend in a number sentence (missing addends $-10$ to 10, sums $-20$ to 20).	smma_lo_00110
		Find the missing addend in a number sentence (sums $-20$ to 20).	smma_lo_00122
		Find the missing addend in a number sentence (three addends, $-10$ to 10).	smma_lo_00123
		Add two negative integers or add 0 and a negative integer (sums $-20$ to 0).	smma_lo_00107
		Add a positive and a negative integer (one-digit addends, sums $-9$ to 9).	smma_lo_00108
		Add two integers using addition facts (addends $-10$ to 10, sums $-20$ to 20).	smma_lo_00109
Determine if the sum is positive or negative (one- and two-digit addends).	smma_lo_00106		

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6.N.2.3	Add and subtract integers; use efficient and generalizable procedures including but not limited to standard algorithms.	Find the sum of four integers when two are additive inverses (a, b, c, and d have absolute values 1 to 20).	smma_lo_00119
		Add three integers (sum $-10$ to $10$ ).	smma_lo_00111
		Add integers in an associative expression $((a + b) + c$ , three addends $-10$ to $10$ ).	smma_lo_00113
		Add two integers ( $-20$ to $20$ ).	smma_lo_00121
		Compare sums and difference of positive and negative integers ( $-5$ to $5$ ).	smma_lo_01528
		Find three consecutive integers when given their sum.	smma_lo_01639
6.N.3.1	Identify and use ratios to compare quantities. Recognize that multiplicative comparison and additive comparison are different.	Complete a comparison statement based on the ratios in two tables.	smma_lo_02116
6.N.3.2	Determine the unit rate for ratios.	Find the unit price of an item (products $2 \times 6$ to $25 \times 32$ ).	smma_lo_00830
		Identify two unit rates for a given word problem.	smma_lo_02114
6.N.3.3	Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixture and concentrations.	Find the percent given the whole and the part.	smma_lo_00276
		Find the whole given the percent and the part.	smma_lo_00277
		Find the number of grams that represents a percentage of the total weight (whole numbers).	smma_lo_01636
6.N.3.4	Use multiplicative reasoning and representations to solve ratio and unit rate problems.	Find the number of hours worked given the hourly rate and total earned.	smma_lo_01625
		Convert measurement units either by making a table or by multiplying by a unit rate.	smma_lo_02117
		Identify the correct proportion for the context, and then solve.	smma_lo_01826
6.N.4.1	Estimate solutions to problems with whole numbers, decimals, fractions, and mixed numbers and use the estimates to assess the reasonableness of results in the context of the problem.	Estimate the missing factor in a number sentence (round to the nearest ten, products 2,010 to 81,090).	smma_lo_00913
		Estimate the difference by rounding to the nearest dollar (minuends $\$5.00$ to $\$20.00$ , subtrahends $\$3.00$ to $\$15.00$ ).	smma_lo_01669
		Estimate the total cost of four items by rounding to the nearest dollar (sums to $\$15.00$ ).	smma_lo_01591
		Estimate the product of two numbers (factors 101 to 949).	smma_lo_00912
		Estimate the product of three factors (1,000 to 350,000).	smma_lo_01099

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6.N.4.1	Estimate solutions to problems with whole numbers, decimals, fractions, and mixed numbers and use the estimates to assess the reasonableness of results in the context of the problem.	Estimate the sum, difference, product or quotient to solve a problem in context (round to the nearest thousand).	smma_lo_01109
		Estimate the difference of two fractions.	smma_lo_01707
		Estimate the sum, product, or quotient in problems with fractions.	smma_lo_01095
6.N.4.2	Illustrate multiplication and division of fractions and decimals to show connections to fractions, whole number multiplication, and inverse relationships.	Use fraction models to relate a fraction to a whole number times a unit fraction. Then, write an equation for this relationship.	smma_lo_02005
		Use fraction models to rewrite the product of a whole number and a fraction as the product of a whole number and a unit fraction. Then, find the product.	smma_lo_02006
		Find the missing decimal number on a number line; then count by multiples of tenths to find the product.	smma_lo_00220
		Multiply decimals by 10, 100, or 1000.	smma_lo_00235
		Model the division of a unit fraction by a nonzero whole number, and compute the quotient.	smma_lo_02052
		Solve a division problem about money with extra information (round quotient to the nearest whole number).	smma_lo_01585
		Model multiplication of a whole number by a fraction; complete an equation to show the product; interpret a real-world context that can be modeled by this equation.	smma_lo_02048
		Solve for a, b, or c in $a/b \div c = d/e$ (combinations to $12 \div 12$ ).	smma_lo_00375
		Solve for a, b, c, or d in $a/b \div c/d = e/f$ .	smma_lo_00377
		Using pictures, find a fractional amount of a whole number (product of halves to fourths and 2 to 16).	smma_lo_00428
		6.N.4.3	Multiply and divide fractions and decimals using efficient and generalizable procedures.
Determine the missing factor in the multiplication number sentence (decimals, to ten-thousandths).	smma_lo_00240		
Find the area of a rectangle with fractional side lengths in two ways: by multiplying its side lengths and by tiling it with smaller rectangles.	smma_lo_02049		
Multiply a decimal and a whole number displayed horizontally ( $0.02 \times 2$ to $0.09 \times 5$ ).	smma_lo_00221		

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6.N.4.3	Multiply and divide fractions and decimals using efficient and generalizable procedures.	Multiply two decimals or multiply a decimal by a whole number (tenths to hundredths).	smma_lo_00223
		Multiply decimals displayed horizontally ( $0.2 \times 0.6$ to $0.9 \times 0.12$ ).	smma_lo_00232
		Divide a decimal by a decimal (horizontal division; dividends to tenths).	smma_lo_00237
		Divide decimals ( $0.3 \times 0.3$ to $0.9 \times 0.09$ ).	smma_lo_00245
		Divide decimals ( $0 \times 2$ to $2 \times 5$ ).	smma_lo_00251
		Multiply a whole number or a decimal by 0.1, 0.01, or 0.001.	smma_lo_00252
		Divide a decimal by 0.1, 0.01, or 0.001.	smma_lo_00263
		Divide a decimal by 0.1, 0.01, or 0.001 (dividends 0.001 to 0.999).	smma_lo_00267
		Identify the location of the decimal point of the product of two decimals (factors, tenths to hundredths).	smma_lo_00222
		Multiply fractions; no simplifying.	smma_lo_00469
		Multiply a whole number by a proper fraction; no simplifying.	smma_lo_00470
		Multiply fractions; simplify.	smma_lo_00475
		Multiply fractions; simplify first.	smma_lo_00476
		Multiply a fraction and a whole number; simplify.	smma_lo_00477
		Multiply a fraction and a whole number; simplify first.	smma_lo_00478
		Find a fractional part of a fraction.	smma_lo_00498
		Multiply three fractions; simplify if necessary.	smma_lo_00506
		Model the multiplication of two fractions; complete an equation to show the product; interpret a real-world context that can be modeled by this equation.	smma_lo_02054
		Multiply mixed numbers; simplify if necessary.	smma_lo_00501
		Divide a whole number by a fraction; simplify if necessary.	smma_lo_01787
		Use models to solve real-world problems involving division of unit fractions by nonzero whole numbers.	smma_lo_02156
		Solve a one-step equation (multiplication, decimals).	smma_lo_01797
		Solve a one-step equation (fractions, multiplication and division).	smma_lo_01847
		Divide fractions; simplify if necessary.	smma_lo_00487
		Divide a fraction by a mixed number; simplify if necessary.	smma_lo_00491
		Divide a whole number by a fraction.	smma_lo_00492
		Divide a mixed number by a whole number; simplify if necessary.	smma_lo_00502

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6.N.4.3	Multiply and divide fractions and decimals using efficient and generalizable procedures.	Divide fractions; simplify.	smma_lo_00512
		Divide a fraction by a fraction; simplify if necessary.	smma_lo_01788
		Divide a mixed number by a fraction; simplify if necessary.	smma_lo_01789
		Divide a mixed number by a mixed number; simplify if necessary.	smma_lo_01790
		Multiply decimals (to thousandths × hundredths).	smma_lo_00234
		Multiply decimals (to ten-thousandths × ten-thousandths).	smma_lo_00244
		Move the decimal point in the divisor and dividend in a long division problem.	smma_lo_00247
		Divide a decimal by a whole number.	smma_lo_00248
		Move the decimal point in the divisor and dividend in a long division problem; then find the quotient.	smma_lo_00249
		Solve a two-step equation (fractions, multiplication).	smma_lo_01850
		Divide a fraction by a whole number; simplify if necessary.	smma_lo_00489
		6.N.4.4	Solve and interpret real-world and mathematical problems including those involving money, measurement, geometry, and data requiring arithmetic with decimals, fractions and mixed numbers.
Determine the sale price of an item when the price is reduced by one-half, one-third, or one-fourth.	smma_lo_01285		
Find the number of dollar bills needed to buy two to four items (each \$1.79 to \$3.99 each).	smma_lo_01629		
Find the fractional part of a recipe (multiply a fraction and a mixed number).	smma_lo_00835		
Identify the one-step equation that is a translation of the written phrase within a context.	smma_lo_01813		
Multiply mixed numbers to determine the area of a rectangle or triangle; simplify if necessary.	smma_lo_00508		
Find the amount of an ingredient needed to make two, three or four times a recipe.	smma_lo_01627		
Solve for a variable in the formula for volume of a rectangular prism (whole numbers and mixed numbers).	smma_lo_01817		
7.A.1.2	Recognize that the graph of a proportional relationship is a line through the origin and the coordinate (1, r), where both r and the slope are the unit rate (constant of proportionality, k).		

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7.A.2.1	Represent proportional relationships with tables, verbal descriptions, symbols, and graphs; translate from one representation to another. Determine and compare the unit rate (constant of proportionality, slope, or rate of change) given any of these representations.	Find missing values in a table that represents a proportional relationship, and plot the pairs of values on the coordinate plane.	smma_lo_02115
		Determine the fraction needed to complete the proportion.	smma_lo_01827
		Identify the unit rate given a table, a graph, an equation, a diagram, or a word problem.	smma_lo_02001
		Interpret the meaning of a point on the graph of a proportional relationship in terms of the situation; use this information to answer questions about the situation.	smma_lo_02089
		Compare a proportional relationship represented as a graph to a proportional relationship represented as a table.	smma_lo_02074
		Select a table that contains data that are in the same proportions as the sectors of a graph.	smma_lo_01162
7.A.2.2	Solve multi-step problems involving proportional relationships involving distance-time, percent increase or decrease, discounts, tips, unit pricing, similar figures, and other real-world and mathematical situations.	Given a rate and a model, find a distance.	smma_lo_01575
		Solve time and distance problems (whole numbers).	smma_lo_00842
		Find the total money earned, given the number of hours worked and the hourly rate.	smma_lo_01630
		Find a percent of a money amount (\$0.80 to \$10.80).	smma_lo_00270
		Find a percent of a number (the percent is greater than or equal to 100).	smma_lo_00275
		Given the number of kilowatt-hours used and a price, find the total cost of power.	smma_lo_01336
		Find the total cost, given an amount and the sales tax percentage.	smma_lo_00178
		Find the percent of increase.	smma_lo_00278
		Identify a correct expression to solve a problem about sales tax.	smma_lo_00845
Find total earnings for two to four weeks given the weekly salary, commission percentage, and total sales (whole number percents).	smma_lo_01637		
7.A.2.3	Use proportional reasoning to solve real-world and mathematical problems involving ratios.	Solve a problem in context using proportions.	smma_lo_01635
		Solve a proportion problem in context.	smma_lo_01284
		Form a proportion that can be used to solve for the height of an object.	smma_lo_00660

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7.A.3.1	Write and solve problems leading to linear equations with one variable in the form $ax + b = c$ and $ax - b = c$ , where $a, b, c$ are rational numbers.	Complete the steps to solve for $x$ in $ax + b = c$ .	smma_lo_00383
		Complete the steps to solve for $x$ in $ax + b = c$ ( $x$ is from $-9$ to $-1$ ).	smma_lo_00392
		Complete the steps to solve for $x$ in $ax - b = c$ ( $x$ is from $-9$ to $2$ ).	smma_lo_00393
		Complete the steps to solve for $x$ in $ax - b = c$ ( $x$ is from $-9$ to $9$ ).	smma_lo_00394
		Solve for $x$ in $-x = a$ (numbers from $-99$ to $99$ ).	smma_lo_00395
		Complete the steps to solve for $x$ in $a - x = b$ .	smma_lo_00396
		Solve a one-step equation (two-digit integers, addition and subtraction).	smma_lo_01844
7.A.3.3	Represent real-world or mathematical situations using equations and inequalities involving variables and rational numbers.	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint in a real-world problem.	smma_lo_02064
		Write an inequality of the form $x > c$ or $x < c$ to represent a constraint in a real-world problem. Then represent the solution on a number line.	smma_lo_02065
		Match equations and inequalities with real-world situations.	smma_lo_02140
		Write an inequality of the form $px + q > r$ or $px + q < r$ to represent a constraint in a real-world problem.	smma_lo_02083
7.A.4.1	Use properties of operations (limited to associative, commutative, and distributive) to generate equivalent numerical and algebraic expressions containing rational numbers, grouping symbols and whole number exponents.	Evaluate $-a(a + b)$ , where $9 < a < 19$ , $1 < b < 9$ .	smma_lo_00127
		Evaluate the expression $-(-a)$ , where $a$ has values $1$ to $99$ .	smma_lo_01518
		Evaluate $-(-a + b)$ , where $1 < a, b < 9$ .	smma_lo_00128
		Evaluate the expression $-(-a - b)$ , where $a$ and $b$ have values from $1$ to $9$ .	smma_lo_01532
		Identify an equivalent expression of commutativity for addition of integers.	smma_lo_00114
		Evaluate an algebraic expression (integers $-10$ to $10$ ).	smma_lo_01842

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7.A.4.1	Use properties of operations (limited to associative, commutative, and distributive) to generate equivalent numerical and algebraic expressions containing rational numbers, grouping symbols and whole number exponents.	Evaluate an algebraic expression with three variables ( $-5.9$ to $5.9$ ).	smma_lo_01843
		Choose all expressions that are equivalent to a given expression.	smma_lo_02060
		Apply properties of operations to add two linear expressions.	smma_lo_02149
7.D.1.1	Design simple experiments, collect data and calculate measures of central tendency (mean, median, and mode) and spread (range). Use these quantities to draw conclusions about the data collected and make predictions.	Find and compare the average variation of two sets of data.	smma_lo_01221
7.D.1.2	Use reasoning with proportions to display and interpret data in circle graphs (pie charts) and histograms. Choose the appropriate data display and know how to create the display using a spreadsheet or other graphing technology.	Select a circle graph whose sectors are in the same proportions as the data displayed in a given table.	smma_lo_01160
		Read and interpret data from a circle graph labeled with percents.	smma_lo_01208
7.D.2.1	Determine the theoretical probability of an event using the ratio between the size of the event and the size of the sample space; represent probabilities as percents, fractions and decimals between 0 and 1.	Given a graphical representation of an urn containing balls of three colors, determine qualitatively which event is more probable to occur (5 to 8 times as many balls of one color as of the other color).	smma_lo_01157
		Given a graphical representation of an urn containing balls of two colors, determine qualitatively which color is more probable to be randomly selected (2 to 4 times as many balls of one color as of the other color).	smma_lo_01159
		Given a graphical representation of an urn containing balls of three colors, determine qualitatively which event is more probable to occur.	smma_lo_01163
		Given a graphical representation of two urns containing different compositions of balls of two colors, select the urn in which an event is qualitatively determined to have a high probability.	smma_lo_01173
		Within the context of selecting without replacement from a bowl containing marbles of two colors, indicate the effect of changes on the probability of the event in both the number of possible outcomes favorable to an event and the total number of possible	smma_lo_01200

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OK Standard	OK Standard Text	Item Description	Item ID
7.D.2.2	Calculate probability as a fraction of sample space or as a fraction of area. Express probabilities as percents, decimals and fractions.	Within the context of selecting without replacement from a bowl containing marbles of two colors, indicate the effect of changes on the probability of the event in both the number of possible outcomes favorable to an event and the total number of possible	smma_lo_01203; smma_lo_01216; smma_lo_01226
		Write a fraction to express the probability of an event.	smma_lo_01667
		In the context of randomly selecting a card that has one of two pictures on it, compute the probability of each picture being selected from a set of cards (total of 4 to 7 cards).	smma_lo_01211
		In the context of randomly selecting a card that has a certain me on it, compute the probability of each me being selected from a set of cards.	smma_lo_01215
7.D.2.3	Use proportional reasoning to draw conclusions about and predict relative frequencies of outcomes based on probabilities.	Using a graphical representation of an urn and a set of balls of two colors, modify a random experiment so that the qualitative probability of getting one color is greater than that of getting the other color.	smma_lo_01161
7.GM.1.2	Using a variety of tools and strategies, develop the concept that the volume of rectangular prisms with rational-valued edge lengths can be found by counting the total number of same-sized unit cubes that fill a shape without gaps or overlaps. Use appropriate measurements such as cm <sup>3</sup> .	Find the volume of a prism by packing the prism with unit cubes.	smma_lo_02042
		Find the volume of a rectangular solid by counting cubes.	smma_lo_00829
		Find the volume of a rectangular solid by counting cubes.	smma_lo_00833
7.GM.3.1	Demonstrate an understanding of the proportional relationship between the diameter and circumference of a circle and that the unit rate (constant of proportionality) is $\pi$ and can be approximated by rational numbers such as $\frac{22}{7}$ and 3.14.	Determine the most accurate representation of the circumference of a circle.	smma_lo_01784
		Measure the diameter of a circle, and then determine the circumference.	smma_lo_01779
		Measure the radius of a circle, and then determine the circumference.	smma_lo_01780
		Measure the diameter of a circle, and then determine the area.	smma_lo_01781
		Measure the radius of a circle, and then determine the area.	smma_lo_01783
7.GM.3.2	Calculate the circumference and area of circles to solve problems in various contexts, in terms of $\pi$ and using approximations for $\pi$ .	Given the radius, find the circumference of a circle within context.	smma_lo_01855
		Given the diameter, find the circumference of a circle within context.	smma_lo_01856
		Find the circumference, given the length of the diameter or the radius ( $\pi = 3.14$ ).	smma_lo_00828

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7.GM.4.1	Describe the properties of similarity, compare geometric figures for similarity, and determine scale factors using dilations.	Identify the scale factor in similar shapes to find the missing corresponding sides.	smma_lo_00513
		Determine the algebraic expression used to find the coordinates of the image of a figure under a dilation with the origin as the center of dilation.	smma_lo_02142
		Identify the polygon that is not similar to the others (counterexample)	smma_lo_00645
		Identify the figure that is not similar to the others. (simple shapes, counterexample)	smma_lo_00649
		Identify similar triangles or rectangles on a geoboard.	smma_lo_00847
		Identify two figures as being similar, congruent, or neither.	smma_lo_00618
		Determine whether or not a diagram gives enough information to determine whether or not two triangles are similar. If so, identify the triangles as similar or not similar.	smma_lo_02130
7.GM.4.2	Apply proportions, ratios, and scale factors to solve problems involving scale drawings and determine side lengths and areas of similar triangles and rectangles.	Determine distances from scale drawings (inches to miles, cm to km).	smma_lo_00815
		Interpret scale drawings (metric and customary units of length).	smma_lo_00846
7.GM.4.3	Graph and describe translations and reflections of figures on a coordinate plane and determine the coordinates of the vertices of the figure after the transformation.	Rotate a figure by 90, 180, or 270 degrees clockwise or counterclockwise on a coordinate plane.	smma_lo_02104
		Reflect a figure on a coordinate plane over the x-axis, the y-axis, or the line $y = x$ .	smma_lo_02105
		Translate a figure on a coordinate plane.	smma_lo_02120
		Rotate a figure on a coordinate plane; verify properties of the rotation.	smma_lo_02121
		Reflect a figure on a coordinate plane over the x-axis, the y-axis, or the line $y = x$ ; verify properties of the rotation.	smma_lo_02122
		Translate a figure on a coordinate plane; verify properties of the rotation.	smma_lo_02123
		Given two congruent figures, transform one figure so that it lines up with the other. Then, identify the sequence of transformations used.	smma_lo_02124
		Reflect a figure, find the coordinates of the reflected figure, and describe the effect of the reflection on the coordinates.	smma_lo_02125
		Determine the missing coordinate of a vertex of a triangle in a transformation.	smma_lo_01736

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OK Standard	OK Standard Text	Item Description	Item ID
7.N.1.2	Compare and order rational numbers expressed in various forms using the symbols $<$ , $>$ , and $=$ .	Determine the least or greatest integer ( $-10$ to $10$ ).	smma_lo_01102
		Complete statements of order for rational numbers in real-world contexts.	smma_lo_02110
		Compare rational numbers in real-world contexts.	smma_lo_02109
7.N.1.3	Recognize and generate equivalent representations of rational numbers, including equivalent fractions.	Determine addition expressions that are equivalent to a given fraction.	smma_lo_02146
		Translate a verbal statement of a multiplicative comparison into a	smma_lo_02008
		Identify the written phrase that is a translation of a expression or inequality.	smma_lo_01815
		Translate an expression into a written phrase (two-step).	smma_lo_01816
		Express a fraction as a percent (denominator is 100).	smma_lo_01714
		Identify the equation that translates the written phrase ( $ax + b = c$ ).	smma_lo_00385
		Identify the equation that translates the written phrase ( $ax + b = c$ ).	smma_lo_00386
		Identify the two-step equation that is a translation of the written phrase within a context.	smma_lo_01814
		Identify the equation translated from a written phrase.	smma_lo_01852
		Identify $a - b$ as equivalent to $a + (-b)$ , where $a$ and $b$ are 1 to 20.	smma_lo_01514
		Identify $-a - b$ as equivalent to $-a + (-b)$ (minuends $-20$ to $-1$ ).	smma_lo_01515
		Identify $a - (-b)$ as equivalent to $a + b$ (minuends 1 to 10).	smma_lo_01517
		Identify $-a - (-b)$ as equivalent to $-a + b$ (minuends and subtrahends $-9$ to $9$ ).	smma_lo_01521
		Identify $-(a - b)$ as equivalent to $-a + b$ with variables.	smma_lo_01529
		Identify $-(-a - b)$ as equivalent to $a + b$ with variables.	smma_lo_01530
		Identify an equivalent expression with integers (four one-digit addends).	smma_lo_00117
		Identify an equivalent variable expression ( $-(a + b) = -a + (-b)$ ).	smma_lo_00124
		Identify $a \times (b - c)$ as equivalent to $(a \times b) - (a \times c)$ .	smma_lo_00130
		Identify fractions that are equivalent to a given negative fraction.	smma_lo_02087
		Identify $-(a + b)$ as equivalent to $-a - b$ , where $a$ and $b$ are 1 to 9.	smma_lo_00118
Identify $-(a - b)$ as equivalent to $-a + b$ ( $a$ and $b$ from 1 to 9).	smma_lo_01523		
Identify $-(-a - b)$ as equivalent to $a + b$ ( $a$ and $b$ from 1 to 9).	smma_lo_01524		

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OK Standard	OK Standard Text	Item Description	Item ID
7.N.1.3	Recognize and generate equivalent representations of rational numbers, including equivalent fractions.	Identify $a \times (b - c)$ as equivalent to $(a \times b) - (a \times c)$ with variables.	smma_lo_01533
		Identify $a \times (b - c)$ as equivalent to $(a \times b) - (a \times c)$ .	smma_lo_01534
		Identify $-(a + b)$ as equivalent to $-a + (-b)$ , where $a$ and $b$ are 1 to 9.	smma_lo_00115
		Identify $-(a + b)$ as equivalent to $-a - b$ , where $a$ and $b$ are 1 to 9.	smma_lo_00116
7.N.2.2	Illustrate multiplication and division of integers using a variety of representations.	Solve a one-step equation (multiplication).	smma_lo_01690
		Solve for $a$ in $ba/c = d$ by multiplying by the reciprocal.	smma_lo_00382
		Solve for $x$ in $ax = b$ (products from $-(4 \times 4)$ to $-(9 \times 9)$ ).	smma_lo_00390
		Solve for $a$ in $a/b = c$ (products from $-(4 \times 4)$ to $-(9 \times 9)$ ).	smma_lo_00391
		Solve a one-step equation (multiplication and division, integers).	smma_lo_01800
		Solve a one-step equation (integers, multiplication and division).	smma_lo_01845
		Solve a two-step equation (integers).	smma_lo_01846
		Multiply a negative integer by a positive integer (products -144 to -4).	smma_lo_00914
		Multiply two negative integers (products 4 to 144).	smma_lo_00915
		Multiply a negative integer by a positive integer (one-digit number $\times$ two-digit multiple of 10).	smma_lo_00917
		Divide integers (combinations $6 \times 10$ to $-9 \times 12$ , dividend or divisor is negative).	smma_lo_00316
		Divide integers (combinations $4 \times 6$ to $12 \times 12$ ).	smma_lo_00317
		Divide integers (combinations $6 \times 13$ to $9 \times 19$ , all signs).	smma_lo_00319
		Multiply three integers (one-digit factors with absolute values 2 to 10).	smma_lo_00920
7.N.2.3	Solve real-world and mathematical problems involving addition, subtraction, multiplication and division of rational numbers; use efficient and generalizable procedures including but not limited to standard algorithms.	Interpret quotients of rational numbers by describing real-world contexts.	smma_lo_02088
		Find the missing positive or negative factor in a number sentence.	smma_lo_00918
		Find the missing subtrahend in a number sentence (minuends 0 to 10, subtrahends 2 to 11, negative differences).	smma_lo_01509
		Find the missing subtrahend in a number sentence (minuends $-9$ to 0, differences $-9$ to 0).	smma_lo_01512
		Find the final temperature given the initial temperature and the temperature increase.	smma_lo_01632
		Solve for $a$ , $b$ , $c$ , or $d$ in $a/b \times c/d = e/f$ (combinations to $12 \times 12$ ).	smma_lo_00372

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7.N.2.3	Solve real-world and mathematical problems involving addition, subtraction, multiplication and division of rational numbers; use efficient and generalizable procedures including but not limited to standard algorithms.	Solve for a or c in $a/b + c/b = d/b$ (sums $2/3$ to $11/12$ ).	smma_lo_00356
		Solve for a or c in $a/b - c/b = d/b$ (minuends $2/3$ to $11/12$ ).	smma_lo_00360
		Solve for a or c in $a/b - c/b = d/b$ (improper fractions, minuends $4/3$ to $35/12$ ).	smma_lo_00362
		Solve for a or c in $a/b + c/b = d/b$ (improper fractions, sums $4/3$ to $35/12$ ).	smma_lo_00364
		Solve for x in $ax + b = c$ .	smma_lo_00384
		Solve for a in $a + b = c$ (a is from $-20$ to $-1$ ).	smma_lo_00388
		Solve for a in $a - b = c$ (differences from $-19$ to $11$ ).	smma_lo_00389
		Solve a one-step equation (addition and subtraction, one-digit integers).	smma_lo_01801
		Solve a one-step equation (decimal integers, multiplication and division).	smma_lo_01849
		Solve a two-step equation (decimals).	smma_lo_01851
		Solve for a two-step equation in context.	smma_lo_01638
		Represent addition and subtraction of rational numbers (decimals) on a number line.	smma_lo_02154
		Represent addition and subtraction of rational numbers (fractions) on a number line.	smma_lo_02153
		Determine the sign of the products of two integers (one and two-digit integers).	smma_lo_00916
		Determine the sign of the product of four factors.	smma_lo_00919
Convert light years to kilometers and kilometers to light years.	smma_lo_01339		
7.N.2.4	Raise integers to positive integer exponents.	Explain patterns in the number of zeroes of the product and in the placement of the decimal point when multiplying a number by powers of ten.	smma_lo_02046
		Give the value of a number (1 to 10) raised to a power (1 to 5).	smma_lo_01098
7.N.2.5	Solve real-world and mathematical problems involving calculations with rational numbers and positive integer exponents.	Multiply or divide two numbers with exponents (same base, exponents less than 18).	smma_lo_01104
		Find the missing exponent in a multiplication or division number sentence.	smma_lo_01111
7.N.2.6	Explain the relationship between the absolute value of a rational number and the distance of that number from zero on a number line. Use the symbol for absolute value.	Evaluate the absolute value of a number.	smma_lo_01824
		Identify absolute value as a distance from zero on a number line.	smma_lo_01823
		Compare the absolute values of positive and negative quantities in a real-world situation.	smma_lo_02111

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PA.A.1.3	Identify a function as linear if it can be expressed in the form $y = mx + b$ or if its graph is a straight line.	Identify the function that is represented by a table of values (linear and nonlinear).	smma_lo_01883
		Given a graph of a relation, identify two ordered pairs on the graph that show the relation is not a function.	smma_lo_01812
		Identify whether graphs are linear or quadratic.	smma_lo_01831
		Identify whether graphs are linear or nonlinear.	smma_lo_01832
		Determine if a table values represents a linear or nonlinear function.	smma_lo_01834
		Determine if a table values represents a linear or exponential function.	smma_lo_01881
		Determine if a table values represents a linear or quadratic function.	smma_lo_01882
		Identify if an equation is a linear or exponential function.	smma_lo_01828
		Identify if an equation is a linear or quadratic function.	smma_lo_01829
		Identify if an equation is a linear or nonlinear function.	smma_lo_01833
		Identify whether graphs are linear or exponential.	smma_lo_01830
PA.A.2.1	Represent linear functions with tables, verbal descriptions, symbols, and graphs; translate from one representation to another.	Derive the equation $y = mx$ for a line through the origin, and $y = mx + b$ for a line intercepting the vertical axis at $b$ .	smma_lo_02076
		Complete a table of values and graph the equation of a linear function.	smma_lo_01837
		Given a table of values for $x$ and $y$ , identify a true equation.	smma_lo_00399
PA.A.2.2	Identify, describe, and analyze linear relationships between two variables.	Given a list of ordered pairs of a relation, identify two ordered pairs that show the relation is not a function.	smma_lo_01811
		Given a set of graphs of relations, identify which graphs represent functions.	smma_lo_01835
PA.A.2.3	Identify graphical properties of linear functions including slope and intercepts. Know that the slope equals the rate of change, and that the $y$ -intercept is zero when the function represents a proportional relationship.	Graph proportional relationships and interpret the unit rate as the slope of the graph.	smma_lo_02073
		Use similar triangles to explain why the slope $m$ is the same between any two distinct points on a nonvertical line in the coordinate plane.	smma_lo_02075
		Identify the rate of change and the $y$ -intercept of two linear functions, one represented graphically, and one represented either algebraically or in a table.	smma_lo_02101

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PA.A.2.3	Identify graphical properties of linear functions including slope and intercepts. Know that the slope equals the rate of change, and that the y-intercept is zero when the function represents a proportional relationship.	Identify the rate of change and the y-intercept of two linear functions, one represented in a verbal description, and one represented either graphically or algebraically.	smma_lo_02102
		Identify the rate of change and the y-intercept of two linear functions, one represented in a table, and one represented either algebraically or in a verbal description.	smma_lo_02103
PA.A.3.1	Use substitution to simplify and evaluate algebraic expressions.	Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	smma_lo_02061
		Determine whether a given value for x is a solution for $ax + b = c$ (x is from -9 to 9).	smma_lo_00397
		Evaluate an algebraic expression with exponents (integers -10 to 10).	smma_lo_01818
PA.A.4.1	Illustrate, write, and solve mathematical and real-world problems using linear equations with one variable with one solution, infinitely many solutions, or no solutions. Interpret solutions in the original context.	Transform a given multi-step equation into a simpler form.	smma_lo_02079
		Generate and solve an equation with variables on both sides of the equal sign in a real-world context.	smma_lo_02145
		Identify the solution to a system of linear equations by locating the point of intersection on its graph.	smma_lo_02080
		If a system of linear equations has 0 or infinitely many solutions, solve it by inspection. If it has 1 solution, solve it either algebraically or by graphing.	smma_lo_02133
		Model a real-world problem with a system of linear equations. Then solve it by locating the intersection point of the graphs of the two equations.	smma_lo_02134
PA.A.4.2	Represent, write, solve, and graph problems leading to linear inequalities with one variable in the form $ax + b > c$ and $ax + b < c$ , where a, b, and c are rational	Solve an inequality of the form $px + q > r$ or $px + q < r$ ; then graph the solution on a number line.	smma_lo_02084
PA.D.1.3	Collect, display and interpret data using scatterplots. Use the shape of the scatterplot to informally estimate a line of best fit, make statements about average rate of change, and make predictions about values not in the original data set. Use appropriate titles, labels and units.	Identify positive, negative, or no association for sets of actual data.	smma_lo_01222
		Choose an approximation based on a trend line for bivariate data.	smma_lo_02143

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PA.D.2.1	Calculate experimental probabilities and represent them as percents, fractions and decimals between 0 and 1 inclusive. Use experimental probabilities to make predictions when actual probabilities are unknown.	Given a sentence describing an observed event, label a future occurrence as certain, possible, or impossible.	smma_lo_01143
		Given the graphical representation of a bowl containing marbles of two colors, represent on a qualitative ordinal scale the probability of an event (6 to 11 marbles in the bowl).	smma_lo_01165
		Given a graphical representation of a bowl containing marbles of two colors, represent on a qualitative ordinal scale the probability of an event and its complement.	smma_lo_01171
		Express an event as a ratio of the number of favorable outcomes to the total number of outcomes (bowl containing marbles of two colors).	smma_lo_01179
		Determine the probability of an event.	smma_lo_01197
		Determine the event that is most or least likely; then conduct a simulation in which the results are recorded so that theoretical and experimental probability can be compared.	smma_lo_01738
PA.D.2.2	Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population.	Make predictions based on a sample.	smma_lo_01223
PA.D.2.3	Compare and contrast dependent and independent events.	Identify the probability of two independent outcomes, and then determine the probability of the combination of the two outcomes occurring simultaneously.	smma_lo_01224
PA.GM.1.1	Informally justify the Pythagorean Theorem using measurements, diagrams, or dynamic software and use the Pythagorean Theorem to solve problems in two and three dimensions involving right triangles	Explain a proof of the Pythagorean Theorem.	smma_lo_02131
		Find the measurement of the hypotenuse using the Pythagorean theorem. (2D)	smma_lo_01854
PA.GM.1.2	Use the Pythagorean Theorem to find the distance between any two points in a coordinate plane.	Given two points on a coordinate grid, draw a right triangle whose hypotenuse connects the two points. Then use the Pythagorean Theorem to find the distance between the two points.	smma_lo_02100

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PA.GM.2.3	Develop and use the formulas $V = lwh$ and $V = Bh$ to determine the volume of rectangular prisms. Justify why base area (B) and height (h) are multiplied to find the volume of a rectangular prism. Use appropriate measurements such as $cm^3$ .	Determine the volume of a box given the height, width, and length (60 to 480 customary or metric cubic units).	smma_lo_00174
		Calculate the volume of a rectangular prism; then convert the cubic feet or cubic meters into gallons or liters.	smma_lo_01819
		Find the volume of a rectangular or triangular prism.	smma_lo_00838
PA.GM.2.4	Develop and use the formulas $V = \pi r^2h$ and $V = Bh$ to determine the volume of right cylinders, in terms of $\pi$ and using approximations for $\pi$ . Justify why base area (B) and height (h) are multiplied to find the volume of a right cylinder. Use appropriate measurements such as $cm^3$ .	Use a formula to find the volume of a cylinder.	smma_lo_00839
PA.N.1.1	Develop and apply the properties of integer exponents, including a to the power of 0 =1 (with a $\neq 0$ ), to generate equivalent numerical and algebraic expressions.	Match expressions with repeated factors to numbers in exponential form to create equations.	smma_lo_01100
PA.N.1.2	Express and compare approximations of very large and very small numbers using scientific notation.	Write very small numbers in scientific notation.	smma_lo_02070
		Write very large numbers in scientific notation.	smma_lo_02071
		Compare numbers written in scientific notation.	smma_lo_02072
		Express a number in scientific notation (exponents 1 to 6).	smma_lo_01113
		Given the scientific notation, determine the standard notation of a number (the power of 10 has an exponent of 1 to 6).	smma_lo_01121
		Find the missing exponent for a number written in scientific notation (the exponent is 1 to 6).	smma_lo_01122
PA.N.1.5	Compare real numbers; locate real numbers on a number line. Identify the square root of a perfect square to 400 or, if it is not a perfect square root, locate it as an irrational number between two consecutive positive integers.	Find the square root of a number using a calculator (numbers to 4000).	smma_lo_01120
		Drag rational and irrational values to their correct positions on a number line.	smma_lo_02141

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