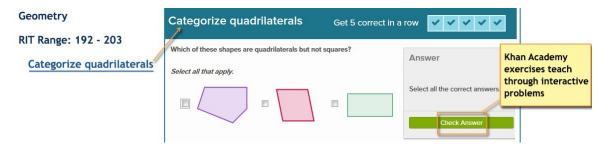


#### About this Document

This document correlates MAP<sup>®</sup> sub-goals and RIT ranges to Khan Academy<sup>®</sup> exercises. The Khan exercises are interactive problems for students with instant feedback:



Having these exercises correlated to RIT ranges means you can use them in conjunction with your flexible student groupings that are also informed by RIT score results. The exercises are also useful for targeting learning in each student's zone of proximal development (Vygotsky).

The correlation between MAP RIT scores and the Khan Academy exercises was determined by using our 2011 norms data to approximate grade levels, which were then matched to the corresponding Common Core State Standards (CCSS). Teachers in states that have not adopted the CCSS may still find these resources valuable by relating goals or sub-goals that are similar to CCSS goals and sub-goals.

NWEA plans to work with Khan Academy to update these links twice a year as new exercises are developed.

#### How to Use

- 1. Use MAP reports to find the RIT scores for a given sub-goal.
- 2. In this document, locate that same goal, approximate RIT range, and sub-goals.
- 3. To choose appropriate Khan Academy exercises:
  - a. Consider both the name of the exercise and the CCSS standard.
  - b. Click the link and try the exercise yourself. Note: When you're in Khan Academy, the links to videos and other resources add context to the actual exercise but are not necessarily correlated to MAP.
- 4. In the browser window where the exercise opened, note or copy the Web address URL.
- 5. Optionally deliver exercises to students. For example:
  - Paste the URL into an online document for students to access.
  - Present the exercise in the classroom.
  - Use for parent-teacher conference discussion.

#### Limitations

The instructional suggestions presented in this document are intended to provide supplementary resources based on available Khan Academy exercises and are not intended to replace other options. MAP/MPG data should be used as one of many data points for instructional decisions rather than as a placement guide.

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## Common Core MAP Mathematics Khan Academy Practice Exercises Correlation Common Core Mathematics 2-5

Geometry		
Reason with Shapes, Attributes, & Coordinate Plane	Ρ	4
Measurement and Data		
Geometric Measurement and Problem Solving	Ρ	6
Represent and Interpret Data	Ρ	10
Number and Operations		
Number and Operations - Fractions	Ρ	11
Number and Operations in Base Ten	Ρ	14
Understand Place Value, Counting, and Cardinality	Ρ	19
Operations and Algebraic Thinking		
Analyze Patterns and Relationships	Ρ	21
Represent and Solve Problems	Ρ	23

## Geometry

**Standards Alignment** 

<b>RIT Range: &lt; 160</b> Practice comparing shapes based on their number of sides, number of	
corners, and side-lengths.	K.G.B.4
Practice combining shapes to make other shapes.	K.G.B.6
Practice identifying circles, triangles, squares, and rectangles.	K.G.A.1
<u>Practice more challenging problems identifying circles, triangles, squares, and rectangles.</u>	K.G.A.2
Decide if objects are above, below, beside, in front of, or behind other <u>objects.</u>	K.G.A.1
RIT Range: 161-178	
<u>Practice identifying circles, triangles, squares, rectangles, rhombuses,</u> <u>trapezoids, and hexagons.</u>	1.G.A.1
Practice dividing shapes into 2 or 4 equal sections.	1.G.A.3
RIT Range: 179-191	
Practice telling if shapes are divided into 2 or 4 equal sections.	2.G.A.3
Practice figuring out how many equal-sized square fill a rectangle.	2.G.A.2
Practice identifying quadrilaterals, pentagons, hexagons, and octagons.	2.G.A.1
RIT Range: 192-202	
Classify and compare rectangles, rhombuses, and squares.	3.G.A.1
Identify unit fractions when given a visual or a context.	3.G.A.2
Practice telling if a shape has been divided into equal parts.	3.G.A.2
RIT Range: 203-212	
Determine if an angle is acute, right, or obtuse. A protractor is provided.	4.G.A.1
Draw and identify lines of symmetry. Create and identify symmetrical shapes.	4.G.A.3
<u>Classify shapes based on pictures or attributes, such as angle types and side-lengths.</u>	4.G.A.2
Draw rays, lines, and line segments with given points.	4.G.A.1
Practice drawing lines of symmetry and creating symmetrical figures.	4.G.A.3
Practice drawing parallel and perpendicular lines, line segments, and ray	4.G.A.1
Create an acute, right, or obtuse angle using a given vertex.	4.G.A.1

## Geometry

Reason with Shapes, Attributes, & Coordinate Plane	Standards Alignment
RIT Range: 203-212	
Practice identifying triangles by their angles as acute, right, or obtuse.	4.G.A.2
Identify quadrilaterals based on pictures or attributes. Quadrilaterals included are parallelograms, rhombuses, rectangles, and squares.	4.G.A.2
Determine if angles in shapes and pictures are acute, right, or obtuse.	4.G.A.1
Recognize rays, lines, and line segments in geometric figures.	4.G.A.1
Determine if angles in shapes and pictures are acute, right, or obtuse.	4.G.A.1
Recognize parallel and perpendicular lines in geometric figures and	4.G.A.1
<u>pictures.</u> <u>Practice identifying triangles by their side-lengths as equilateral, isosceles,</u> <u>or scalene.</u>	4.G.A.2
RIT Range: 213-219	
Find the distance between points, graph points, and interpret data on coordinate planes to solve word problems.	5.G.A.2
Graph and find the distance between point in first quadrant of coordinate plane.	5.G.A.1   5.G.A.2
Plot a given point on the coordinate plane.	5.G.A.1   5.G.A.2
Identify points in the first quadrant of a coordinate plane.	5.G.A.1
Identify and compare shapes based on their attributes. Shapes include triangle types, quadrilateral types, pentagons, and hexagons.	5.G.B.3   5.G.B.4
Identify and graph corners on shapes graphed in the first quadrant of a coordinate plane.	5.G.A.1   5.G.A.2

#### RIT Range: 220-223

Reflecting points on the coordinate plane	6.NS.C.8
RIT Range: 221 - 225	
Points on the coordinate plane	6.NS.C.6

#### RIT Range: 220-223

Practice drawing shapes on the coordinate plane.	6.G.A.3
More challenging problems involving drawing shapes on the coordinate	6.G.A.3
<u>plane.</u>	
Challenge problems involving the coordinates of the vertices of the	6.G.A.3
<u>quadrilaterals</u>	

## Geometry

Reason with Shapes, Attributes, & Coordinate Plane	Standards Alignment
RIT Range: 224-227	
Match 3D objects with their 2D cross-sections.	7.G.A.3
Measurement and Data	
Geometric Measurement and Problem Solving	Standards Alignment
RIT Range: < 160	
Practice comparing 2 objects to see which is bigger, smaller, taller, shorter, or longer.	K.MD.A.2
RIT Range: 161-178	
Compare the lengths of 2 objects indirectly by using a third object.	1.MD.A.1
Measure objects with same-size length units without gaps or overlaps.	1.MD.A.2
Practice ordering 3 objects by length.	1.MD.A.1
Practice telling time on analog clocks to the hour or half hour.	1.MD.B.3
RIT Range: 179-191	
Estimating lengths	2.MD.A.3
RIT Range: 179-191	
<u>Practice adding and subtracting using the number line. Numbers used are 100 or less.</u>	2.MD.B.6
Find the total value when given an amount of coins or dollars.	2.MD.C.8
Add and subtract lengths to solve word problems.	2.MD.B.5
Measure objects using a ruler.	2.MD.A.1
Tell time on unlabeled analog clocks.	2.MD.C.7
Tell time on labeled analog clocks.	2.MD.C.7
RIT Range: 192-202	
Find the area of shapes by counting the unit squares inside them.	3.MD.C.5   3.MD.C.6
Use area models to represent the distributive property in finding area of	3.MD.C.7
rectangles.	
Find area of rectangles and squares by multiplying side lengths.	3.MD.C.7
Compare the areas and perimeters of rectangles when given a context or picture.	3.MD.D.8

Geometric Measurement and Problem Solving	Standards Alignment
RIT Range: 192-202	
Compare the areas of rectangles represented in images or contexts.	3.MD.C.7
Practice decomposing figures into rectangles to find area. Some figures are on grids.	3.MD.C.7
Practice decomposing irregular shapes to find their area.	3.MD.C.7
Practice estimating the mass of real life objects using grams and kilograms	3.MD.A.2
Practice estimating the volume of real life objects using milliliters and liters	3.MD.A.2
Practice finding a missing side length on a rectangle when given the other side length and the area.	3.MD.C.7
Find a missing side length for a figure when given the perimeter.	3.MD.D.8
Practice finding the area of rectangles by counting unit square. Create rectangles with a given area by covering unit squares.	3.MD.C.6
Find area of rectangles by multiplying side-lengths.	3.MD.C.7
Solve word problems involving mass. Estimate the mass of items.	3.MD.A.2
Practice measuring the side-lengths of a rectangle to find its area.	3.MD.C.7
Practice measuring side lengths to find perimeter.	3.MD.D.8
Count unit squares and partial unit squares to find the area of shapes	3.MD.C.6
Calculate the perimeter of a shape from its side lengths.	3.MD.D.8
Find perimeter of figures when given an image or context.	3.MD.D.8
Practice solving real world word problems involving perimeter.	3.MD.D.8
Practice telling time using analog clocks. Some clocks do not have labels.	3.MD.A.1
Solve a word problem to find the duration of an event. Both analog or digital clocks are included.	3.MD.A.1
Use a number line to solving time word problems.	3.MD.A.1
Practice finding the difference between times given on two analog clocks	3.MD.A.1
Compare the amount of unit squares that cover figures.	3.MD.C.5
Solve word problems involving volume. Estimate the volume of items.	3.MD.A.2

## RIT Range: 203-212

Find the area of rectangles and squares when given side lengths. Find the4.MD.A.3side length of a square when given the area.4.MD.A.3Find the missing side length of a rectangle when given its perimeter or4.MD.A.3area. Compare perimeters and areas of rectangles.4.MD.A.3

Geometric Measurement and Problem Solving	Standards Alignment
RIT Range: 203-212	
Find the area of rectangles and squares when given side lengths. Find the side length of a square when given the area.	4.MD.A.3
Estimate the size of angles when given a picture or a situation.	4.MD.C.5
Practice converting a US customary measure of volume to a smaller unit.	4.MD.A.1
Practice converting a metric measure of mass to a smaller unit.	4.MD.A.1
Practice converting a US customary measure of length to a smaller unit.	4.MD.A.1
Practice converting a metric measure of volume to a smaller unit.	4.MD.A.1
Practice converting a metric measure of length to a smaller unit.	4.MD.A.1
Practice converting a US customary measure of mass to a smaller unit.	4.MD.A.1
Find an angle's measure when given the measures of its parts.	4.MD.C.7
Use a protractor to construct angles.	4.MD.C.6
Practice estimating the length of real life objects using US customary units.	4.MD.A.1
Practice estimating the length of real life objects using metric units.	4.MD.A.1
Practice estimating the mass of real life objects using US customary units.	4.MD.A.1
Practice estimating the volume of real life objects using US customary	4.MD.A.1
Practice converting a measure of time to a smaller unit.	4.MD.A.1
Measure angles using a protractor.	4.MD.C.6
Solve word problems that involve converting between U.S. dollars and	4.MD.A.2
<u>cents and converting U.S. dollars to other units of money, like pesos.</u> Solve word problems to find what time an event occurred or how long an	
event lasted.	4.MD.A.2
Name angles by their vertex, endpoints, or labels.	4.MD.C.5
Practice estimating the length of an event using seconds, minutes, and	4.MD.A.1
hours.	
RIT Range: 213-219 Practice measuring angles using a circle protractor, solve word problems	
about angles as part of a circle.	5.MD.C.5
Solve word problems that involve converting between methe measures of	5.MD.A.1
distance, volume, and mass, as well as measures of time.	5.MD.A.1
<u>Convert between metric measures of distance, volume, and mass.</u> Convert between US customary measures of distance, volume, and mass.	5.MD.A.1

Geometric Measurement and Problem Solving	Standards Alignment
RIT Range: 213-219	
Solve word problems that involve converting between US customary measures of distance, volume, and mass.	5.MD.A.1
Find the volume of irregular 3D figures by dividing the figures into rectangular prisms and finding the volume of each part.	5.MD.C.5
Find volume of a rectangular prism with labeled side lengths. Find a missing side length on a rectangular prism when given the volume.	5.MD.C.5
Find volume of rectangular prisms to solve word problems.	5.MD.C.5
Find volume of 3-dimensional figures by counting unit cubes.	5.MD.C.5
Practice problems that help you see why the volume formula makes sense.	5.MD.C.5
Recognize volume as an attribute of solid figures and understand concepts of volume measurement.	5.MD.C.4   5.MD.C.5
RIT Range: 220-223	
Basic rate problems	6.RP.A.3b
RIT Range: 220-223	
Practice finding the area of parallelograms given base and height.	6.G.A.1
Practice finding the area of right, acute, and obtuse triangles from a diagram.	6.G.A.1
<u>Practice finding the areas of complex shapes that are composed of smaller</u> shapes.	6.G.A.1
<u>Practice finding the areas of triangles and quadrilaterals on grids.</u>	6.G.A.1
Practice finding the areas of trapezoids.	6.G.A.1
Practice solving problems involving triangles, parallelograms, and composite figures. Exercises include decimals, fractions, and word	6.G.A.1
problems. Area of circles is not included. Practice finding the volume of rectangular prisms that have fractional side lengths.	6.G.A.2
<u>Practice solving volume word problems involving objects like fish tanks,</u> <u>truck beds, and refrigerators.</u>	6.G.A.2
RIT Range: 226 - 230	
Discount, tax, and tip word problems	7.EE.B.3
Rate problems 1	7.RP.A.1

RIT Range: 224-227

Geometric Measurement and Problem Solving	Standards Alignment
RIT Range: 224-227	
Find the areas of shaded regions which are combinations of squares, triangles, and circles.	7.G.B.6
Measurement and Data	
Represent and Interpret Data	Standards Alignment
RIT Range: < 160	
Practice counting to see which group has the most things in it.	K.MD.B.3
RIT Range: 161-178	
Read and interpret bar graphs.	1.MD.C.4
DIT Devices 170 101	
RIT Range: 179-191	
Practice creating line plots (dot plots) from data sets.	2.MD.D.9
Practice creating bar graphs (bar charts) from data sets.	2.MD.D.9
Practice creating picture graphs (pictographs) from data sets.	2.MD.D.9
Use bar graphs to solve addition and subtraction word problems.	2.MD.D.10
Answer questions using line plots and data sets.	2.MD.D.9
Read and interpret picture graphs.	2.MD.D.10
RIT Range: 192-202	
Create a bar graph with the data given.	3.MD.B.3
Record measurements on line plots (also called dot plots).	3.MD.B.4
Create and interpret picture graphs.	3.MD.B.3
Read and interpret a double bar graphs.	3.MD.B.3
Interpret picture graphs to answer questions about a context.	3.MD.B.3
Interpret bar graphs to answer questions about a context.	3.MD.B.3
Use picture graphs to solve word problems.	3.MD.B.3
RIT Range: 203-212	

#### RIT Range: 203-212

Create and interpret dot plots using data with fractions. Fraction	4.MD.B.4
operations include addition and subtraction.	

Represent and Interpret Data	Standards Alignment
<b>RIT Range: 213-219</b> Interpret fraction data on dot plots to solve word problems.	5.MD.B.2
RIT Range: 220-223 <u>Practice reading information presented in box plots.</u> <u>Practice creating dot plots. Dot plots are very similar to frequency tables,</u> <u>but they make it easier to see the data.</u>	6.SP.B.4 6.SP.B.4
<u>Practice creating frequency tables from small data sets.</u> <u>Practice creating histograms.</u>	6.SP.B.4 6.SP.B.4
Number and Operations Number and Operations - Fractions	Standards Alignment
RIT Range: 161 - 178 Halves and fourths	1.G.A.3
RIT Range: 179 - 191 Equal parts of circles and rectangles	2.G.A.3
RIT Range: 192-202 <u>Compare two fractions that have either the same numerator or</u> <u>denominator.</u> <u>Compare two fractions that have the same denominator using greater and</u>	3.NF.A.3
less than symbols. Compare two fractions that have the same numerator using greater and less than symbols.	3.NF.A.3 3.NF.A.3
<u>Practice comparing fractions with the help of visuals aides.</u> Identify unit fractions when given a visual or a context. Graph and identify equivalent fractions on a number line.	3.NF.A.3 3.NF.A.1 3.NF.A.3
Identify and create equivalent fractions using visual models.	3.NF.A.3
Locate 1 on a number line labeled with 0 and a unit fraction.	3.NF.A.2
Plot and spot fractions on the number line.	3.NF.A.2
Use unit fractions to think about the location of other fractions on the number line.	3.NF.A.2
Identify the fraction of a whole that is shaded.	3.NF.A.1

mber and Operations - Fractions	Standards Alignment
Range: 192-202	
Practice identifying numerators and denominators in fractions.	3.NF.A.1
Identify the fraction of a whole that is shaded.	3.NF.A.1
Practice telling if a shape has been divided into equal parts.	3.NF.A.1
Range: 203-212	
Practice adding fractions that have denominators of 10 and 100.	4.NF.C.5
Add two fractions with the like denominators.	4.NF.B.3
Practice comparing decimals and fractions. Decimals and fractions in these	4.NF.C.7
problems are limited to tenths and hundredths for easier comparison.	
Practice rewriting fractions to have the same denominator.	4.NF.A.2
Practice comparing decimals. Decimals in these problems are limited to <u>tenths</u> and hundredths.	4.NF.C.7
Practice comparing two fractions with different denominators with greater and less than symbols.	4.NF.A.2
<u>Practice comparing fractions and mixed numbers that have unlike</u> <u>denominators.</u>	4.NF.A.2
Practice comparing decimals with the help of visual aids.	4.NF.C.7
Practice rewriting decimals as fractions. These problems use decimals with	4.NF.C.6
tenths and hundredths.	
<u>Practice rewriting fractions as decimals. Fractions in these problems have</u> <u>denominators</u> of 10 and 100.	4.NF.C.6
Practice writing a fraction as a mixed number and vice versa.	4.NF.B.3
Practice writing decimal numbers shown in grid diagrams.	4.NF.C.6
Practice finding decimal numbers on the number line. Decimals are limited	4.NF.C.6
to tenths in these problems.	
Practice finding decimal numbers on the number line. Decimals are limited	4.NF.C.6
to hundredths.	
Practice writing decimal numbers in word form and number form.	4.NF.C.6
<u>Graph tenths between 0 and 1 on the number line.</u>	4.NF.C.6
Graph hundredths between 0 and 0.1 on a number line.	4.NF.C.6
<u>Practice breaking apart (decomposing) some number of hundredths into</u> <u>tenths and hundredths.</u>	4.NF.C.5
Practice using the same whole to find equivalent fractions.	4.NF.A.2
Practice making equivalent fractions by multiplying the numerator and	4.NF.A.1

5.NF.B.6

## **Number and Operations**

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Standards Alignment
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#### RIT Range: 203-212

Practice writing equivalent fractions with denominators of 10 and 100.	4.NF.C.5
Practice writing equivalent fractions with denominators of 10 and 100. These problems give you pictures to help you find the answer.	4.NF.C.5
Practice these problems to see how decimals and fractions can represent the same number.	4.NF.C.6
Practice matching fraction diagrams to multiplication expressions.	4.NF.B.4
Practice ordering 3 fractions from least to greatest.	4.NF.A.2
Solve a subtraction problem with two fractions with like denominators.	4.NF.B.3
Practice seeing how one whole-number-times-fraction problem is the same as another. Find equivalent multiplication expressions.	4.NF.B.4
<u>Practice finding equivalent fractions. These problems show you pictures of fractions to help you out.</u>	4.NF.A.1
Practice comparing fractions by looking at pictures. Fractions in these problems do not have common denominators.	4.NF.A.2
RIT Range: 213-219 Fraction multiplication as scaling	5.NF.B.5b
RIT Range: 213-219 Practice adding fractions that have different denominators.	5.NF.A.1
Practice adding and subtracting mixed numbers with different denominators. No regrouping required.	5.NF.A.1
<u>Challenge problems involving adding and subtracting fractions that have</u> <u>unlike denominators.</u>	5.NF.A.1
<u>Practice solving fraction addition and subtraction word problems. The</u> <u>fractions in these problems have unlike denominators.</u> <u>Practice adding and subtracting mixed numbers with different</u>	5.NF.A.2
denominators. Regrouping required.	5.NF.A.1
Practice dividing a whole number by a unit fraction.	5.NF.B.7
Divide a unit fraction by a whole number.	5.NF.B.7
Practice dividing unit fractions by whole numbers with visual models.	5.NF.B.7
Learn how to divide whole number by unit fractions with visual models.	5.NF.B.7
Practice multiplying two fractions.	5.NF.B.4
Practice multiplying mixed numbers.	5.NF.B.4

Solve and interpret fraction multiplication word problems.

**Standards Alignment** 

1.NBT.C.4

## **Number and Operations**

Number and	<b>Operations - Fraction</b>	S
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DIT Devices 242-240	
RIT Range: 213-219 Practice subtracting fractions that have different denominators.	5.NF.A.1
Practice understanding that the fraction bar really means division.	5.NF.B.3
Practice word problems that involve using the fraction bar as division.	5.NF.B.3
Use area models, number lines, and tape diagrams to multiply a whole	5.NF.B.4
number times a fraction.	
Use area models and tape diagrams to multiply a fraction times a fraction.	5.NF.B.4
Practice adding and subtracting fractions that have different	5.NF.A.1
denominators. Problems have fraction diagrams.	
RIT Range: 220-223	6.NS.C.6c
Rational numbers on the number line One-step equations with multiplication and division	6.EE.B.7
one step equations with multiplication and avision	
RIT Range: 220-223	
Practice dividing fractions by fractions. No negative numbers are used in	6.NS.A.1
this exercise.	0.NS.A.1
Practice solving word problems by dividing fractions by fractions.	6.NS.A.1
Understanding dividing fractions by fractions	6.NS.A.1
RIT Range: 224-227	
Practice simplifying complex fractions.	7.NS.A.3
Number and Onerations	
Number and Operations	
Number and Operations in Base Ten	Standards Alignment
RIT Range: < 160	K.OA.A.5
Addition within 5 Subtraction within 5	K.OA.A.5
RIT Range: 161 - 178	
Addition within 20	1.OA.C.6

#### RIT Range: 161-178

Practice solving problems like 34+5 and 34+50.

Number and Operations in Base Ten	Standards Alignment
RIT Range: 161-178	
Practice solving problems like 34+1 and 34+10.	1.NBT.C.4   1.NBT.C.5
Practice solving problems like 24 + 45.	1.NBT.C.4
Practice breaking apart problems like 23+45 into problems like 20+40+3+5.	1.NBT.C.4
Practice adding numbers like 45+8.	1.NBT.C.4
RIT Range: 179-191	
Regrouping: two-digit number minus one-digit number	2.NBT.A.4
RIT Range: 179-191	
<u>Practice adding and subtracting numbers like 554 and 237 using a number</u> <u>line. All numbers are less than 1000.</u>	2.NBT.B.7
Practice adding two-digit numbers. All numbers in these problems are 100 or less.	2.NBT.B.5
Practice adding and subtracting numbers like 54 and 37 using a number line. Numbers used in these problems are all less than 100.	2.NBT.B.7
Practice solving problems like 344+20 and 344+200.	2.NBT.B.7
Practice solving problems like 243 + 452.	2.NBT.B.7
Practice breaking apart big addition problems using place value. For example, 234+567 is the same as 200+500+30+60+4+7.	2.NBT.B.7
Practice adding 2-digit numbers like 43+27 that have sums that are <u>multiples of 10.</u>	2.NBT.B.5
Practice adding two-digit numbers by making groups of ten.	2.NBT.B.5
Practice telling which strategies work for adding two numbers within 100.	2.NBT.B.7
Practice solving problems like 67-5 and 67-50.	2.NBT.B.5
Practice subtracting. All numbers in these problems are 20 or less.	2.NBT.B.5
Practice subtracting 2-digit numbers.	2.NBT.B.5
Practice subtracting 1, 10, or 100 from a number.	2.NBT.B.7
Practice solving problems like 452 + 241.	2.NBT.B.7
Practice subtracting 1 or 10 from a 2-digit number (no regrouping).	2.NBT.B.5
Practice solving problems like 45 - 24.	2.NBT.B.5

RIT Range: 192 - 203 Meaning of division

3.0A.A.2

Number and Operations in Base Ten	Standards Alignment
RIT Range: 192 - 203	
Meaning of multiplication	3.0A.A.1
RIT Range: 192-202	
Practice adding three-digit numbers. All sums are 1000 or less.	3.NBT.A.2   4.NBT.B.4
Practice making groups of 10 and 100 while adding 3-digit numbers.	3.NBT.A.2
Multiply a 1-digit number by a multiple of 10.	3.NBT.A.3 3.NBT.A.3
Solve word problems with multiples of ten. Decompose multiples of ten to multiply.	5.NDT.A.5
Subtract with 2 numbers less than 1000.	3.NBT.A.2   4.NBT.B.4
RIT Range: 203-212	
Practice adding three-digit numbers. All sums are 1000 or less.	3.NBT.A.2   4.NBT.B.4 4.NBT.B.6
Learn to cancel zeros when dividing numbers like 3000 and 50.	4.NBT.B.0
Practice dividing 2-, 3-, and 4-digit numbers by a 1-digit number.	4.NBT.B.6
Practice finding remainders in division problems, like 247÷5.	4.NBT.B.6
Decompose 3- and 4-digit dividends to divide them by a 1-digit divisor.	4.NBT.B.6
Practice finding remainders in small division problems, like 24÷5.	4.NBT.B.6
Practice breaking up big division problems into smaller, simpler problems.	4.NBT.B.6
Multiply 2- or 3-digit numbers by 1-digit numbers. No regrouping.	4.NBT.B.5
Multiply 3- or 4-digit numbers by 1-digit numbers. Regrouping (carrying) <u>needed.</u>	4.NBT.B.5
Multiply 2-digit numbers by 2-digit numbers. Regrouping (carrying) needed.	4.NBT.B.5
Multiply a 1-digit number by a multi-digit number by decomposing the multi-digit number.	4.NBT.B.5
Practice multiplication problems like 5x100=500.	4.NBT.B.5
Practice multiplication problems like 5x500=2500.	4.NBT.B.5
Use an area model to decompose factors and multiply.	4.NBT.B.5
Use an area model to decompose the larger factor and multiply.	4.NBT.B.5
Practice multiplying 2-digit multiples of 10, such as 50x70=3500.	4.NBT.B.5
Practice division problems that work out to multiples of ten. Example: <u>1200 <math>\div</math> 30 = 40.</u>	4.NBT.B.6

Subtract with 2 numbers less than 1000.

3.NBT.A.2 | 4.NBT.B.4

#### **Standards Alignment**

Practice solving division problems with 0s in the dividend (for example, 204÷4).	4.NBT.B.6
Practice solving division problems with 0s in the solution, or quotient.	4.NBT.B.6
Range: 213-219	
Add two numbers that are written to the ones, tenths, or hundredths	
place.	5.NBT.B.7
Add two numbers that are either whole numbers or written to the tenths	_
place value.	5.NBT.B.
Add tenths like 0.7 + 0.5	5.NBT.B.
Add whole numbers and tenths like 4 + 5.7	5.NBT.B.
Add larger numbers with tenths like 40.1+7.6	5.NBT.B.
Add whole numbers, tenths, and hundredths like 60+2.57 or 5.53+3.1	5.NBT.B.
Add more challenging whole numbers, tenths, and hundredths like 5.7+4.51 or 47.75+11.98	5.NBT.B.
Add hundredths like 0.76+0.21	5.NBT.B.
Divide numbers like 105÷21 or 119÷17	5.NBT.B.
Divide two whole numbers to get a quotient with a decimal.	5.NBT.B.
Divide a whole number by a number written to the tenths or hundredths	- 5.NBT.B.
place. Quotients are whole numbers.	5.1101.0.
Divide a whole number by a number written to the tenths or hundredths	
place. Quotients may include decimals.	5.NBT.B.
Divide two numbers. Divisors, dividends, and quotients can include	
decimals written to the tenths or hundredths place.	5.NBT.B.
Divide numbers like 2400÷30.	5.NBT.B.
Dividing whole numbers to get a decimal quotient like 15÷6=2.5	5.NBT.B.
Dividing decimals by whole numbers like 2.5÷5 or 1.86÷2	5.NBT.B.
Dividing decimals where we can factor a 10 out of the divisor like 9÷30	5.NBT.B.7
Dividing larger whole numbers by whole numbers to get a decimal like	5.NBT.B.
<u>80÷200</u>	
Dividing tenths by tenths like 0.6÷0.2.	5.NBT.B.
Dividing numbers by 0.1 or 0.01 like 10÷0.1 or 5.3÷0.01	5.NBT.B.
More challenging division with decimals like 14÷0.7 or 1.32÷0.12.	5.NBT.B.

## Number and Operations in Base Ten

#### Standards Alignment

T Range: 213-219	
Multiply 2-3 digits by 3-4 digits with carrying.	5.NBT.B.5
Multiply a whole number times a decimal written to the tenths or <u>hundredths</u> place.	5.NBT.B.7
Multiply two numbers. Factors are written to the ones, tenths, or	
hundredths_place.	5.NBT.B.7
Multiply numbers like 900 x 1000	5.NBT.B.5
Multiply tenths like 0.6 x 0.4	5.NBT.B.7
Multiply decimals and whole numbers like 8x0.2 or 0.56x4	5.NBT.B.7
Multiply numbers with tenths and hundredths like 3.1x3.3 or 1.7x0.12	5.NBT.B.7
Complete subtraction problems where both numbers are written to the hundredths place.	5.NBT.B.7
Complete subtraction problems where both numbers are written to the tenths place.	5.NBT.B.7
Subtract tenths like 0.9-0.7	5.NBT.B.7
Subtract small whole numbers and tenths like 1.6-0.3	5.NBT.B.7
Subtract larger whole numbers and tenths like 78.4-3	5.NBT.B.7
Subtract trickier numbers with tenths like 56.8-17.9	5.NBT.B.7
Subtract hundredths like 0.75-0.56	5.NBT.B.7
Subtract small whole numbers, tenths, and hundredths like 0.6-0.43 or 1.58-0.5	5.NBT.B.7
Subtract larger whole numbers, tenths, and hundredths like 67.89-6 or 35.65-17.34	5.NBT.B.7
More challenging subtraction problems with whole numbers, tenths, and hundredths like 15-7.45 or 12.19-7.68	- 5.NBT.B.7
Range: 220-223 One-step equations with multiplication and division	6.EE.B.7
Range: 220-223	
Practice solving word problems by adding or subtracting decimal numbers.	6.NS.B.3
<u>Practice adding two numbers that are written to the tenths, hundredths, or thousandths place.</u>	6.NS.B.3
Practice dividing decimal numbers using "long division".	6.NS.B.3
<u>Practice dividing multi-digit whole numbers. These problems use remainders.</u>	6.NS.B.2

# Number and Operations in Base

Number and Operations in Base Ten	Standards Alignment
RIT Range: 220-223 <u>Practice multiplying two numbers that are written to the tenths,</u> hundredths, or thousandths place.	6.NS.B.3
Practice subtracting two numbers that are written to the tenths, hundredths, or thousandths place.	6.NS.B.3
RIT Range: 226 - 230 Discount, tax, and tip word problems	7.EE.B.3
RIT Range: 224-227	
Practice subtracting positive and negative single-digit numbers.	7.NS.A.1
Practice adding positive and negative single-digit numbers.	7.NS.A.1
Practice solving word problems with negative numbers.	7.NS.A.1
Practice solving challenging negative number addition and subtraction problems. Number line models, variables, and absolute value come together to push your knowledge of negative numbers even deeper (maybe even below zero!).	7.NS.A.1

## **Number and Operations**

#### Understand Place Value, Counting, and Cardinality

#### **Standards Alignment**

Range: <160	
Practice counting which group has more objects.	K.CC.C.6
Practice saying if one number is less than or greater than another number.	K.CC.C.7
Numbers are between 0 and 10.	
Find the missing number in a list of numbers. Numbers used are 20 or less.	K.CC.A.2
Counting in scenes	K.CC.B.4
Practice counting up to 10 objects.	K.CC.B.5
Practice counting by tens.	K.CC.A.1
Practice finding missing numbers in a list of numbers between 0 and 100.	K.CC.A.1
Practice counting up to 20 objects. Objects are organized neatly into rows and columns.	K.CC.B.5
Practice counting up to 20 objects in random patterns.	K.CC.B.5
Practice thinking of teen numbers as a ten plus some ones.	K.NBT.A.1

#### RIT Range: 161-178

Understand Place Value, Counting, and Cardinality	Standards Alignment
RIT Range: 161-178	
Practice comparing numbers (within 100) using the symbols <, >, and =	1.NBT.B.3
Practice more challenging problems comparing numbers within 100.	1.NBT.B.3
Practice grouping objects by tens.	1.NBT.B.2
Practice finding missing numbers in a list of numbers between 0 and 120.	1.NBT.A.1
Practice breaking numbers apart into tens and ones.	1.NBT.B.2
RIT Range: 179-191	
Practice more challenging problems comparing numbers within 1000.	2.NBT.A.4
Find the total value when given an amount of coins or dollars.	2.NBT.A.2
Practice thinking about 3-digit numbers as hundreds, tens, and ones.	2.NBT.A.1
Practice counting by 100s.	2.NBT.A.2
Practice counting by 10s.	2.NBT.A.2
Practice counting by 5s.	2.NBT.A.2
Practice breaking numbers into hundreds, tens, and ones.	2.NBT.A.3
RIT Range: 192-202	
Give your brain a workout with these challenge problems on rounding.	3.NBT.A.1
Practice rounding to the nearest ten and rounding to the nearest hundred on the number line.	- 3.NBT.A.1
Practice rounding to the nearest ten and rounding to the nearest hundred.	3.NBT.A.1
RIT Range: 203-212	
Use your place value skills to practice comparing whole numbers.	4.NBT.A.2
<u>Compare multi-digit numbers that challenge your place value</u> understanding	4.NBT.A.2
Sal arranges digits to make the largest or smallest possible number.	4.NBT.A.1
Practice dividing whole numbers by 10.	4.NBT.A.1
Practice multiplying and dividing whole numbers by ten.	4.NBT.A.1
Practice multiplying whole numbers by 10.	4.NBT.A.1
Practice reading and writing numbers written in expanded form. Example: The expanded form of 376 is 300 + 70 + 6.	- 4.NBT.A.2

The expanded form of 376 is 300 + 70 + 6.

Understand Place Value, Counting, and Cardinality	Standards Alignment
RIT Range: 203-212	
Practice working with whole numbers in written form. For example, "one thousand four hundred three" is the written form of 1403.	4.NBT.A.2
Practice thinking about the value of each digit in a number.	4.NBT.A.2
Practice using place value blocks.	4.NBT.A.1
Practice rounding whole numbers to the nearest hundred or thousand.	4.NBT.A.3
Recognize that in a multi-digit whole number, a digit in one place <u>represents</u> ten times what it represents in the place to its right.	4.NBT.A.1
Practice problems to challenge your understanding of whole number place value	4.NBT.A.2
RIT Range: 213-219	
Compare 2 numbers to thousandths based on meanings of the digits in	5.NBT.A.1
<u>each place.</u> <u>Practice identifying place value names for decimal numbers. For example,</u> the 3 in 4.563 is in the thousandths place.	5.NBT.A.3
Practice multiplying and dividing decimals by 10, 100, and 1000. For example, divide 31.4 by 100 to get 0.314.	5.NBT.A.2
Practice multiplying and dividing whole numbers by 10, 100, and 1000.	5.NBT.A.2
Practice multiplying and dividing by powers of 10.	5.NBT.A.2
Practice multiplying and dividing decimal numbers by 10.	5.NBT.A.2
Practice evaluating powers of ten.	5.NBT.A.2
Round decimals and whole numbers to the nearest thousand, hundred, ten, one, tenth, or hundredth.	5.NBT.A.4
Round decimals using number lines. Select numbers that round to a given value.	5.NBT.A.4
Practice using a number line to round decimal numbers.	5.NBT.A.4
<u>Give the number of tens a number is being multiplied or divided by when</u> the decimal is moved to the left or right.	5.NBT.A.2
<u>Practice identifying the value of one of the digits in a decimal number. For</u> example, the 3 in 4.563 has a value of 0.003.	5.NBT.A.1

#### **Analyze Patterns and Relationships**

#### RIT Range: 192-202

Identify arithmetic patterns (including ones in the addition or multiplication tables), and explain them using properties of operations.

3.OA.D.9

**Standards Alignment** 

#### **Analyze Patterns and Relationships Standards Alignment RIT Range: 192-202** 3.OA.D.9 Practice discovering and explaining patterns in multiplication tables. **RIT Range: 203-212** 4.OA.B.4 Identify composite numbers less than 100. 4.0A.B.4 Practice finding factor pairs for whole numbers. 4.0A.B.4 Demonstrate understanding of factors and multiples. Generate terms in a pattern when given a rule. Identify features of a 4.0A.C.5 pattern that are not explicit to the rule itself. 4.0A.B.4 Identify prime numbers less than 100. RIT Range: 213-219 Generate patterns using given rules. Identify relationships between terms. 5.OA.B.3 Graph ordered pairs consisting of corresponding terms from the patterns. **RIT Range: 220-223** Example problem: Three different stores are offering a deal on pencils. 6.RP.A.2 | 6.RP.A.3 Which store has the lowest price per pencil? Practice applying the distributive property to factor numerical expressions 6.NS.B.4 (no variables). 6.NS.B.4 Practice applying the distributive property to algebraic expressions. Find a percent of a quantity as a rate per 100; solve problems involving 6.RP.A.3 finding the whole, given a part and the percent. 6.NS.B.4 Solve word problems where you either need to find the GCF or LCM. 6.NS.B.4 Find the greatest common factor of 2 or 3 integers. 6.NS.B.4 Find the lcm (least common multiple) of pairs of integers. Use rates to solve word problems. For example, Charlie can type 675 6.RP.A.2 | 6.RP.A.3 words in 9 minutes. How many words can Charlie type in 13 minutes? Practice solving ratio word problems like, "If Ben reads 10 pages in 15 6.RP.A.3 minutes, how long does it take him to read 40 pages?" 6.RP.A.3 Practice filling out tables of equivalent ratios.

#### **Operations and Algebraic Thinking**

#### RIT Range: 224-227

Practice computing rates associated with ratios of fractions or decimals. 7.RP.A.1

#### RIT Range: 228-230

Analyze Patterns and Relationships	Standards Alignment
RIT Range: 228-230	
Graphing proportional relationships	8.EE.B.5
Given the x or y value of a 2-variable equation solution, find the value for the other variable in the solution.	8.F.A.1
Operations and Algebraic Thinking	
Represent and Solve Problems	Standards Alignment
RIT Range: < 160	
Add small numbers. All answers are five or less.	K.OA.A.5
Practice solving word problems by adding small numbers (numbers 10 or <u>less).</u>	K.OA.A.2
Practice adding numbers to make 5.	K.OA.A.4
<u>Practice adding numbers to make 10. These problems show grids to help you out.</u>	K.OA.A.4
Practice adding numbers to make 10.	K.OA.A.4
<u>Practice making a number by adding other numbers. All numbers in these</u> problems are less than 10.	- K.OA.A.3
Practice adding by "putting together" (with numbers less than 10).	K.OA.A.1
Subtract small numbers. All answers are less than 5.	K.OA.A.5
<u>Practice solving word problems by subtracting small numbers (numbers 10 or less).</u>	K.OA.A.2
Practice subtracting by "taking apart" (with numbers less than 10).	K.OA.A.1
RIT Range: 161-178	
Practice adding 3 numbers. All numbers in these problems are 20 or less.	1.OA.A.2
Practice adding. All numbers in these problems are 20 or less.	1.OA.C.6 1.OA.A.1
<u>Practice adding and subtracting to solve word problems. Numbers used are</u> <u>20 or less.</u>	1.0A.A.1
<u>Practice solving more challenging word problems with addition and </u> <u>subtraction. Numbers used are 20 or less.</u>	1.OA.A.1
<u>Practice solving word problems by finding how many more (or fewer)</u> objects there are. Numbers used are 20 or less.	1.0A.A.1
	1.OA.A.1
Practice solving more word problems by finding how many more (or	
fewer) objects there are. Numbers used are 20 or less.	

Practice telling which equation is true.

**Standards Alignment** 

3.0A.C.7

3.0A.C.7

#### RIT Range: 161-178

Learn how to solve problems like "	
	1.0A.D
of the values in an addition or subtraction equation.	
Practice seeing how addition and subtraction are related.	1.OA.B.
Practice solving word problems by finding how many more (or fewer)	1.0A.A
objects there are. Each problem shows a diagram to help you.	
ange: 170 101	
ange: 179-191 Practice adding and subtracting to solve word problems. These questions	
are result unknown or change unknown problems. Numbers used are 100	2.0A.A
or less.	_
Practice solving word problems with addition and subtraction. These	
questions are comparison problems including difference unknown, smaller	2.0A.A
value unknown, and bigger value unknown. Numbers used are 100 or less.	
Practice solving word problems with addition and subtraction. These	
guestions are start unknown problems including add to and take from	2.0A.A
problems. Numbers used are 100 or less.	2107.17
Practice solving more challenging addition and subtraction word problems	2.0A.A.1
with "more" and "fewer". € Multi-step problems are also included.	
Numbers used are 100 or less.	
Practice solving problems like " 45 = 27" where you have to figure out	2.OA.A
the missing value in an addition or subtraction equation.	
Add and subtract lengths to solve word problems.	2.0A.A
Practice solving word problems by adding the same number many times	2.0A.0
Read and interpret picture graphs.	2.0A.A
ange: 192-202	
Practice changing the grouping of factors in multiplication problems and	3.OA.B
see how it affects the product.	J.UA.D
Practice changing the order of factors in a multiplication problem and see	-
how it affects the product.	3.OA.B
Divide by 1. Quotients are less than or equal to 10.	3.0A.C
Divide by 10. Quotients are less than or equal to 10.	3.0A.C
Divide by 2. Quotients are less than or equal to 10.	3.0A.C
Divide by 3. Quotients are less than or equal to 10.	3.0A.C

Divide by 4. Quotients are less than or equal to 10.

Divide by 5. Quotients are less than or equal to 10.

Represent and Solve Problems	Standards Alignment
RIT Range: 192-202	
Divide by 6. Quotients are less than or equal to 10.	3.OA.C.7
Divide by 7. Quotients are less than or equal to 10.	3.OA.C.7
Divide by 8. Quotients are less than or equal to 10.	3.0A.C.7
Divide by 9. Quotients are less than or equal to 10.	3.0A.C.7
Practice basic division using various visuals, such as arrays.	3.OA.A.2
Divide two numbers. Quotients are equal to or less than 10.	3.OA.A.4
Divide two numbers. Quotients are equal to or less than 10.	3.OA.A.4
Practice solving for unknown letters and symbols in equations.	3.OA.B.6
Use visual models to understand division.	3.0A.A.2
Practice representing multiplication as equal groups, repeated addition, or arrays.	3.0A.A.1
Multiply two 1-digit numbers. Some problems include multiplying by 10.	3.OA.A.4
Multiply 0 or 1 times a number less than or equal to 10.	3.0A.C.7
Multiply 2 times a number less than or equal to 10.	3.0A.C.7
Multiply 3 times a number less than or equal to 10.	3.0A.C.7
Multiply 4 times a number less than or equal to 10.	3.0A.C.7
Multiply 5 times a number less than or equal to 10.	3.0A.C.7
Multiply 6 times a number less than or equal to 10.	3.OA.C.7
Multiply 7 times a number less than or equal to 10.	3.0A.C.7
Multiply 8 times a number less than or equal to 10.	3.0A.C.7
Multiply 9 times a number less than or equal to 10.	3.0A.C.7
Practice multiplying 1-digit numbers using arrays.	3.0A.A.1
<u>Practice skip counting to find a number on a number line with only two tick</u> marks labeled	<u>k</u> 3.0A.C.7
See the relationship between multiplication and division problems.	3.OA.B.6
Find both the multiplication and division equation that can be used to solve a word problem.	3.OA.B.6
Solve two-step word problems with addition, subtraction, multiplication, <u>and division</u> .	3.OA.D.8

#### RIT Range: 203-212

Represent and Solve Problems	Standards Alignment
RIT Range: 203-212	
Practice solving multiplication and division word problems. Some problems	4.OA.A.2
have remainders.	
Rewrite multiplication equations as comparisons and comparisons as	4.0A.A.1
equations.	
Select the equation that can be used to solve a word problem.	4.OA.A.1
Solve multi-step word problems, including estimation. Select the equation that can be used to solve a word problem.	4.OA.A.3
RIT Range: 213-219	
Practice creating expressions with parentheses from real-world contexts.	5.OA.A.2
Solve multi-step expressions with parentheses. Place parentheses in an expression to make the expression equivalent to a given number.	5.OA.A.1
Practice changing expressions from words to math.	5.OA.A.2
RIT Range: 220-223	
Basic rate problems	6.RP.A.3b
RIT Range: 221 - 225	
Adding and subtracting decimals word problems	6.NS.B.3
Equivalent forms of expressions 1	6.EE.A.3
RIT Range: 220-223	
Practice writing basic equations to model real-world situations.	6.EE.B.7
Practice writing inequalities with variables to describe real-world situations.	6.EE.B.8
Practice solving equations in one step by multiplying or dividing a value	
from both sides.	6.EE.B.7
Practice solving equations in one step by adding or subtracting the same	
value from both sides.	6.EE.B.7
RIT Range: 226 - 230	
Constructing proportions to solve application problems	7.RP.A.3
Proportions 1	7.RP.A.3

#### RIT Range: 224-227

#### Represent and Solve Problems

#### **Standards Alignment**

#### RIT Range: 224-227

Practice solving word problems involving price discounts, taxes, and tip calculations.	7.EE.B.3
Practice interpreting linear expressions	7.EE.A.2
equations to answer interesting questions about the situations.	7.EE.B.4 7.EE.B.3

<u>Practice solving multi-step word problems. The numbers in these problems</u><sup>7.EE.B.3</sup> <u>may be fractions, decimals, and percents.</u>