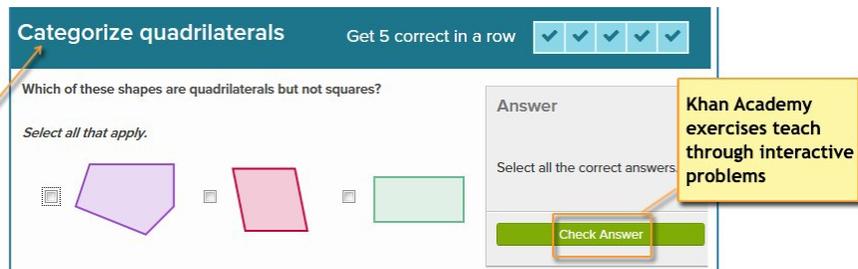**NWEA**
Northwest Evaluation Association

About this Document

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

Geometry

RIT Range: 192 - 203

Categorize quadrilaterals

Categorize quadrilaterals — Get 5 correct in a row ✔ ✔ ✔ ✔ ✔

Which of these shapes are quadrilaterals but not squares?

Select all that apply.

Answer

Select all the correct answers.

Check Answer

Khan Academy exercises teach through interactive problems

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 MPG

Geometry

Reason with Shapes and Their Attributes   **Standards Alignment**

RIT Range: < 160

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
Practice more challenging problems identifying circles, triangles, squares, and rectangles.	K.G.A.2
Decide if objects are above, below, beside, in front of, or behind other objects.	K.G.A.1

RIT Range: 161-178

Practice identifying circles, triangles, squares, rectangles, rhombuses, trapezoids, and hexagons.	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

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

RIT Range: 179-191

Measurement and Data

Represent and Interpret Data

Standards Alignment

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

Measurement and Data

Solve Problems Involving Measurement

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

Practice adding and subtracting using the number line. Numbers used are 100 or less.	2.MD.B.6

Measurement and Data

Solve Problems Involving Measurement

Standards Alignment

RIT Range: 179-191

Find the total value when given an amount of coins or dollars.   2.MD.C.8

Sal estimates lengths using units of inches, feet, centimeters, and meters.   2.MD.A.3

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 rectangles.   3.MD.C.7

Compare the areas and perimeters of rectangles when given a context or picture.   3.MD.D.8

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

Measurement and Data

Solve Problems Involving Measurement   **Standards Alignment**

RIT Range: 192-202

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

Number and Operations

Number and Operations: Base Ten and Fractions   **Standards Alignment**

RIT Range: < 160

Addition within 5	K.OA.A.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.	1.NBT.C.4
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

Practice adding and subtracting numbers like 554 and 237 using a number line. All numbers are less than 1000.	2.NBT.B.7
Practice adding two-digit numbers. All numbers in these problems are 100 or less.	2.NBT.B.5

Number and Operations

Number and Operations: Base Ten and Fractions

Standards Alignment

RIT Range: 179-191

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 multiples of 10.	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: 192-202

Practice adding three-digit numbers. All sums are 1000 or less.	3.NBT.A.2
Compare two fractions that have either the same numerator or denominator.	3.NF.A.3
Compare two fractions that have the same denominator using greater and less than symbols.	3.NF.A.3
Compare two fractions that have the same numerator using greater and less than symbols.	3.NF.A.3
Practice comparing fractions with the help of visuals aides.	3.NF.A.3
Identify unit fractions when given a visual or a context.	3.NF.A.1
Graph and identify equivalent fractions on a number line.	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

Number and Operations

Number and Operations: Base Ten and Fractions   Standards Alignment

RIT Range: 192-202

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

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

Solve word problems with multiples of ten. Decompose multiples of ten to multiply.   3.NBT.A.3

Practice identifying numerators and denominators in fractions.   3.NF.A.1

Identify the fraction of a whole that is shaded.   3.NF.A.1

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

Subtract with 2 numbers less than 1000.   3.NBT.A.2

Practice telling if a shape has been divided into equal parts.   3.NF.A.1

Number and Operations

Understand Place Value, Counting, and Cardinality   Standards Alignment

RIT 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. Numbers are between 0 and 10.   K.CC.C.7

Find the missing number in a list of numbers. Numbers used are 20 or less. K.CC.A.2

Practice counting objects in pictures.   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

Number and Operations

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

Operations and Algebraic Thinking

Properties of Operations

Standards Alignment

RIT Range: < 160

Add small numbers. All answers are five or less. K.OA.A.5

RIT Range: 161-178

Practice adding. All numbers in these problems are 20 or less. 1.OA.C.6

Practice telling which equation is true. 1.OA.D.7

Learn how to solve problems like "_ __ - 7 = 18" where you don't know one 1.OA.D.8

of the values in an addition or subtraction equation.

Practice seeing how addition and subtraction are related. 1.OA.B.4

RIT Range: 179-191

Practice solving word problems by adding the same number many times. 2.OA.C.4

RIT Range: 192 - 203

Operations and Algebraic Thinking

Properties of Operations   Standards Alignment

RIT Range: 192 - 203

Meaning of division   3.OA.A.2

RIT Range: 192-202

Practice changing the order of factors in a multiplication problem and see   3.OA.B.5
how it affects the product.

Divide by 1. Quotients are less than or equal to 10.   3.OA.C.7

Divide by 10. Quotients are less than or equal to 10.   3.OA.C.7

Divide by 2. Quotients are less than or equal to 10.   3.OA.C.7

Divide by 3. Quotients are less than or equal to 10.   3.OA.C.7

Divide by 4. Quotients are less than or equal to 10.   3.OA.C.7

Divide by 5. Quotients are less than or equal to 10.   3.OA.C.7

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.OA.C.7

Divide by 9. Quotients are less than or equal to 10.   3.OA.C.7

Multiply 0 or 1 times a number less than or equal to 10.   3.OA.C.7

Multiply 2 times a number less than or equal to 10.   3.OA.C.7

Multiply 3 times a number less than or equal to 10.   3.OA.C.7

Multiply 4 times a number less than or equal to 10.   3.OA.C.7

Multiply 5 times a number less than or equal to 10.   3.OA.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.OA.C.7

Multiply 8 times a number less than or equal to 10.   3.OA.C.7

Multiply 9 times a number less than or equal to 10.   3.OA.C.7

Practice skip counting to find a number on a number line with only two tick   3.OA.C.7
marks labeled.

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

Operations and Algebraic Thinking

Represent and Solve Problems   **Standards Alignment**

RIT Range: < 160

Addition within five   K.OA.A.5

Practice solving word problems by adding small numbers (numbers 10 or   K.OA.A.2
less).

Practice adding numbers to make 5.   K.OA.A.4

Practice adding numbers to make 10. These problems show grids to help   K.OA.A.4
you out.

Practice adding numbers to make 10.   K.OA.A.4

Practice making a number by adding other numbers. All numbers in these   K.OA.A.3
problems are less than 10.

Practice adding by "putting together" (with numbers less than 10).   K.OA.A.1

Practice solving word problems by subtracting small numbers (numbers 10   K.OA.A.2
or less).

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 and subtracting to solve word problems. Numbers used are   1.OA.A.1
20 or less.

Practice solving more challenging word problems with addition and   1.OA.A.1
subtraction. Numbers used are 20 or less.

Practice solving word problems by finding how many more (or fewer)   1.OA.A.1
objects there are. Numbers used are 20 or less.

Practice solving more word problems by finding how many more (or   1.OA.A.1
fewer) objects there are. Numbers used are 20 or less.

Practice solving word problems by finding how many more (or fewer)   1.OA.A.1
objects there are. Each problem shows a diagram to help you.

RIT Range: 179 - 191

Repeated addition   2.OA.C.4

RIT Range: 179-191

Practice adding and subtracting to solve word problems. These questions are result unknown or change unknown problems. Numbers used are 100 or less.   2.OA.A.1

Practice solving word problems with addition and subtraction. These questions are comparison problems including difference unknown, smaller value unknown, and bigger value unknown. Numbers used are 100 or less.   2.OA.A.1

Operations and Algebraic Thinking

Represent and Solve Problems   **Standards Alignment**

RIT Range: 179-191

Practice solving word problems with addition and subtraction. These questions are start unknown problems including add to and take from problems. Numbers used are 100 or less. — 2.OA.A.1

Practice solving more challenging addition and subtraction word problems with "more" and "fewer".€‹ Multi-step problems are also included. Numbers used are 100 or less. — 2.OA.A.1

Practice solving problems like "___ - 45 = 27" where you have to figure out the missing value in an addition or subtraction equation. — 2.OA.A.1

Add and subtract lengths to solve word problems. — 2.OA.A.1

Read and interpret picture graphs. — 2.OA.A.1

RIT Range: 192-202

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

Use visual models to understand division. — 3.OA.A.2

Practice representing multiplication as equal groups, repeated addition, or arrays. — 3.OA.A.1

Multiply two 1-digit numbers. Some problems include multiplying by 10. — 3.OA.A.4

Practice multiplying 1-digit numbers using arrays. — 3.OA.A.1

Identify arithmetic patterns (including ones in the addition or multiplication tables), and explain them using properties of operations. — 3.OA.D.9

Practice discovering and explaining patterns in multiplication tables. — 3.OA.D.9

Solve two-step word problems with addition, subtraction, multiplication, and division. Some questions include estimation. — 3.OA.D.8