

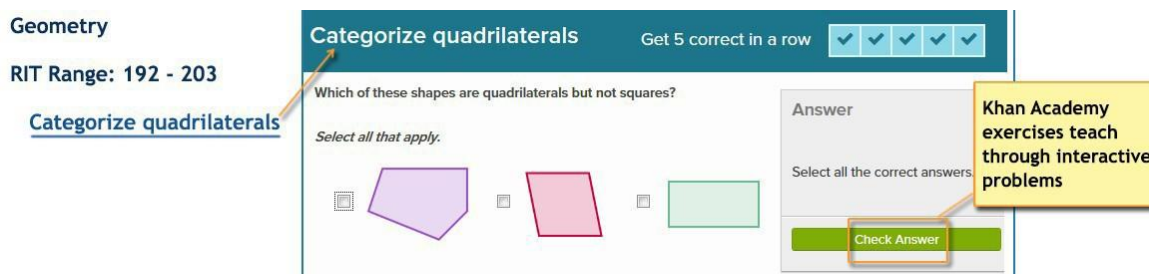
MAP Growth Mathematics to Khan Academy

Khan Academy Practice Exercises Correlated to RIT

Common Core MAP Growth Math 6+

About this Document

This document correlates MAP® Growth™ test sub-goals and RIT ranges to Khan Academy® exercises. The Khan Academy 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 Growth RIT scores and the Khan Academy exercises was determined by using our 2020 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 Growth 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:
 - Consider both the name of the exercise and the CCSS standard.
 - 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 Growth.
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 Growth data should be used as one of many data points for instructional decisions rather than as a placement guide.

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MAP Growth Mathematics

Khan Academy Practice Exercises Correlation

Common Core Math 6+

Operations and Algebraic Thinking	
Expressions and Equations	Pg. 4
Use Functions to Model Relationships	Pg. 14
The Real and Complex Number Systems	
Ratios and Proportional Relationships	Pg. 22
Perform Operations	Pg. 25
Extend and Use Properties	Pg. 35
Geometry	
Geometric Measurement and Relationships	Pg. 39
Congruence, Similarity, Right Triangles, & Trig	Pg. 46
Statistics and Probability	
Interpreting Categorical and Quantitative Data	Pg. 50
Using Sampling and Probability to Make Decisions	Pg. 53

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 189-200

Categorize quadrilaterals	3.G.A.1
Identify quadrilaterals	3.G.A.1 5.G.B.4
Understanding area	3.MD.C.5
Create rectangles with a given area	3.MD.C.6
Find area with partial unit squares	3.MD.C.6
Area of rectangles	3.MD.C.7
Compare areas by multiplying	3.MD.C.7
Decompose figures to find area 1	3.MD.C.7
Decompose figures to find area 2	3.MD.C.7
Find a missing side length when given area	3.MD.C.7
Measure to find area	3.MD.C.7
Transition from unit squares to area formula	3.MD.C.7
Compare area and perimeter	3.MD.D.8
Find a missing side length when given perimeter	3.MD.D.8
Find perimeter by counting unit squares	3.MD.D.8
Find perimeter when given side lengths	3.MD.D.8
Measure to find perimeter	3.MD.D.8
Perimeter word problems	3.MD.D.8

RIT Range: 201-210

Angle types	4.G.A.1
Draw parallel and perpendicular lines	4.G.A.1
Draw rays, lines, & line segments	4.G.A.1
Draw right, acute, and obtuse angles	4.G.A.1
Identify parallel and perpendicular lines	4.G.A.1
Identify rays, lines, & line segments	4.G.A.1

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 201-210

Recognize angles	4.G.A.1
Classify shapes by line and angle types	4.G.A.2
Identify triangles by angles	4.G.A.2
Identify triangles by side lengths	4.G.A.2
Quadrilateral types (1)	4.G.A.2 5.G.B.4
Estimate mass (grams and kilograms)	4.MD.A.1
Estimate volume (milliliters and liters)	4.MD.A.1
Estimating length (in, ft, yd, and mi)	4.MD.A.1
Estimating length (mm, cm, m, km)	4.MD.A.1
Estimating mass (ounces and pounds)	4.MD.A.1
Estimating time (seconds, minutes, and hours)	4.MD.A.1
Estimating volume (cups, pints, quarts, and gallons)	4.MD.A.1
Time conversion word problems	4.MD.A.2
Time differences	4.MD.A.2
Area & perimeter of rectangles word problems	4.MD.A.3
Area of squares and rectangles	4.MD.A.3
Angle basics	4.MD.C.5
Benchmark angles	4.MD.C.5
Name angles	4.MD.C.5
Angles in circles	4.MD.C.5 4.MD.C.6 5.MD.C.5
Draw angles	4.MD.C.6
Measure angles	4.MD.C.6
Decompose angles	4.MD.C.7

RIT Range: 211-217

Identify quadrilaterals	3.G.A.1 5.G.B.4
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Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 211-217

Quadrilateral types (1)	4.G.A.2 5.G.B.4
Angles in circles	4.MD.C.5 4.MD.C.6 5.MD.C.5
Distance between points in first quadrant	5.G.A.2
Graph points	5.G.A.2
Identify coordinates	5.G.A.2
Identify points	5.G.A.2
Shapes on the coordinate plane	5.G.A.2
Properties of shapes	5.G.B.3 5.G.B.4
Quadrilateral types (2)	5.G.B.4
Volume with unit cubes 1	5.MD.C.4
Compare volumes with unit cubes	5.MD.C.4 5.MD.C.5
Decompose figures to find volume	5.MD.C.5
Decompose figures to find volume (unit cubes)	5.MD.C.5
Volume 1	5.MD.C.5
Volume word problems	5.MD.C.5

RIT Range: 218-221

Area challenge	6.G.A.1
Area of composite shapes	6.G.A.1
Area of parallelograms	6.G.A.1
Area of right triangles	6.G.A.1
Area of trapezoids	6.G.A.1
Area of triangles	6.G.A.1
Find base and height on a triangle	6.G.A.1
Find missing length when given area of a parallelogram	6.G.A.1
Find missing length when given area of a triangle	6.G.A.1

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 218-221

<u>Volume by multiplying area of base times height</u>	6.G.A.2
<u>Volume with cubes with fraction lengths</u>	6.G.A.2
<u>Volume with fractions</u>	6.G.A.2
<u>Volume word problems: fractions & decimals</u>	6.G.A.2
<u>Area and perimeter on the coordinate plane</u>	6.G.A.3
<u>Drawing polygons with coordinates</u>	6.G.A.3
<u>Quadrilateral problems on the coordinate plane</u>	6.G.A.3
<u>Find surface area by adding areas of faces</u>	6.G.A.4
<u>Nets of polyhedra</u>	6.G.A.4
<u>Surface area</u>	6.G.A.4
<u>Surface area using nets</u>	6.G.A.4
<u>Surface area word problems</u>	6.G.A.4

RIT Range: 222-226

<u>Construct scale drawings</u>	7.G.A.1
<u>Corresponding sides and points</u>	7.G.A.1
<u>Explore scale copies</u>	7.G.A.1
<u>Identify scale copies</u>	7.G.A.1
<u>Identify scale factor in scale drawings</u>	7.G.A.1
<u>Interpret scale factor in scale drawings</u>	7.G.A.1
<u>Relate scale drawings to area</u>	7.G.A.1
<u>Scale copies</u>	7.G.A.1
<u>Scale drawings</u>	7.G.A.1
<u>Constructing triangles</u>	7.G.A.2
<u>Triangle side length rules</u>	7.G.A.2
<u>Cross sections of 3D objects (basic)</u>	7.G.A.3 HSG-GMD.B.4

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 222-226

Area and circumference of circles challenge	7.G.B.4
Area of a circle	7.G.B.4
Area of parts of circles	7.G.B.4
Circumference and rotations	7.G.B.4
Circumference of a circle	7.G.B.4
Circumference of parts of circles	7.G.B.4
Radius and diameter	7.G.B.4
Complementary and supplementary angles (no visual)	7.G.B.5
Complementary and supplementary angles (visual)	7.G.B.5
Create equations to solve for missing angles	7.G.B.5
Finding angle measures between intersecting lines	7.G.B.5
Finding missing angles	7.G.B.5
Identifying supplementary, complementary, and vertical angles	7.G.B.5
Unknown angle problems (with algebra)	7.G.B.5
Vertical angles	7.G.B.5
Shaded areas	7.G.B.6
Volume and surface area word problems	7.G.B.6

RIT Range: 227-228

Volume of cones	8.G.C.9
Volume of cylinders	8.G.C.9
Volume of cylinders, spheres, and cones word problems	8.G.C.9
Volume of spheres	8.G.C.9
Volume and surface area of cylinders	8.G.C.9 HSG-GMD.A.3
Solid geometry word problems	8.G.C.9 HSG-GMD.A.3 HSG-MG.A.1

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 229-252

Cross sections of 3D objects (basic)	7.G.A.3 HSG-GMD.B.4
Volume and surface area of cylinders	8.G.C.9 HSG-GMD.A.3
Solid geometry word problems	8.G.C.9 HSG-GMD.A.3 HSG-MG.A.1
Inscribed angles	HSG-C.A.2
Inscribed shapes	HSG-C.A.2
Tangents of circles problems	HSG-C.A.2
Inscribed quadrilaterals	HSG-C.A.3
Arc length (1)	HSG-C.B.5
Arc length (2)	HSG-C.B.5
Arc measure	HSG-C.B.5
Arc measure with equations	HSG-C.B.5
Area of a sector	HSG-C.B.5
Radians & arc length	HSG-C.B.5
Radians & degrees	HSG-C.B.5
Density word problems	HSG-GMD.A.3 HSG-MG.A.2
Cross sections of 3D objects	HSG-GMD.B.4
Rotate 2D shapes in 3D	HSG-GMD.B.4
Features of a circle from its expanded equation	HSG-GPE.A.1
Features of a circle from its graph	HSG-GPE.A.1
Features of a circle from its standard equation	HSG-GPE.A.1
Graph a circle from its expanded equation	HSG-GPE.A.1
Graph a circle from its features	HSG-GPE.A.1
Graph a circle from its standard equation	HSG-GPE.A.1
Write standard equation of a circle	HSG-GPE.A.1
Equation of a parabola from focus & directrix	HSG-GPE.A.2
Points inside/outside/on a circle	HSG-GPE.B.4

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 229-252

[Parallel & perpendicular lines from equation](#)

HSG-GPE.B.5

[Parallel & perpendicular lines from graph](#)

HSG-GPE.B.5

[Write equations of parallel & perpendicular lines](#)

HSG-GPE.B.5

[Divide line segments](#)

HSG-GPE.B.6

[Midpoint formula](#)

HSG-GPE.B.6

[Area & perimeter on the coordinate plane](#)

HSG-GPE.B.7

[Coordinate plane word problems: polygons](#)

HSG-GPE.B.7

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: 201-210

Draw lines of symmetry and symmetrical figures	4.G.A.3
Identify lines of symmetry	4.G.A.3
Identify symmetrical figures	4.G.A.3

RIT Range: 227-228

Rotate points (basic)	8.G.A.1
Find measures using rigid transformations	8.G.A.1 8.G.A.2 HSG-CO.A.2 HSG-CO.B.6
Rigid transformations: preserved properties	8.G.A.1 8.G.A.2 HSG-CO.A.2 HSG-CO.B.6
Mapping shapes	8.G.A.1 8.G.A.2 HSG-CO.A.5
Determine rotations (basic)	8.G.A.1 8.G.A.3
Determine rotations	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Determine translations	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Determine reflections	8.G.A.1 8.G.A.3 HSG-CO.A.5
Reflect points	8.G.A.1 8.G.A.3 HSG-CO.A.5
Reflect shapes	8.G.A.1 8.G.A.3 HSG-CO.A.5
Translate points (1)	8.G.A.1 8.G.A.3 HSG-CO.A.5
Translate points (2)	8.G.A.1 8.G.A.3 HSG-CO.A.5
Translate shapes	8.G.A.1 8.G.A.3 HSG-CO.A.5
Identify transformations	8.G.A.1 HSG-CO.A.4 HSG-CO.A.5
Congruence & transformations	8.G.A.2 HSG-CO.B.6
Dilations and properties	8.G.A.3 8.G.A.4
Dilate triangles	8.G.A.3 8.G.A.4 HSG-SRT.A.1 HSG-SRT.A.2
Dilations: scale factor	8.G.A.3 8.G.A.4 HSG-SRT.A.1 HSG-SRT.A.2
Dilate points	8.G.A.3 HSG-SRT.A.1
Similarity & transformations	8.G.A.4 HSG-SRT.A.2

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: 227-228

Angle relationships with parallel lines	8.G.A.5
Equation practice with angles	8.G.A.5
Find angles in triangles	8.G.A.5
Finding angle measures between intersecting lines	8.G.A.5
Finding angle measures using triangles	8.G.A.5
Find angles in isosceles triangles	8.G.A.5 HSG-SRT.B.5
Use area of squares to visualize Pythagorean theorem	8.G.B.6
Pythagorean theorem challenge	8.G.B.7
Pythagorean theorem in 3D	8.G.B.7
Pythagorean theorem word problems	8.G.B.7
Right triangle side lengths	8.G.B.7
Use Pythagorean theorem to find area	8.G.B.7
Use Pythagorean theorem to find isosceles triangle side lengths	8.G.B.7 Use
Pythagorean theorem to find perimeter	8.G.B.7
Use Pythagorean theorem to find right triangle side lengths	8.G.B.7
Distance between two points	8.G.B.8

RIT Range: 229-252

Find measures using rigid transformations	8.G.A.1 8.G.A.2 HSG-CO.A.2 HSG-CO.B.6
Rigid transformations: preserved properties	8.G.A.1 8.G.A.2 HSG-CO.A.2 HSG-CO.B.6
Mapping shapes	8.G.A.1 8.G.A.2 HSG-CO.A.5
Determine rotations	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Determine translations	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Determine reflections	8.G.A.1 8.G.A.3 HSG-CO.A.5
Reflect points	8.G.A.1 8.G.A.3 HSG-CO.A.5
Reflect shapes	8.G.A.1 8.G.A.3 HSG-CO.A.5

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: 229-252

[Translate points \(1\)](#)

8.G.A.1 | 8.G.A.3 | HSG-CO.A.5

[Translate points \(2\)](#)

8.G.A.1 | 8.G.A.3 | HSG-CO.A.5

[Translate shapes](#)

8.G.A.1 | 8.G.A.3 | HSG-CO.A.5

[Identify transformations](#)

8.G.A.1 | HSG-CO.A.4 | HSG-CO.A.5

[Congruence & transformations](#)

8.G.A.2 | HSG-CO.B.6

[Dilate triangles](#)

8.G.A.3 | 8.G.A.4 | HSG-SRT.A.1 | HSG-SRT.A.2

[Dilations: scale factor](#)

8.G.A.3 | 8.G.A.4 | HSG-SRT.A.1 | HSG-SRT.A.2

[Dilate points](#)

8.G.A.3 | HSG-SRT.A.1

[Similarity & transformations](#)

8.G.A.4 | HSG-SRT.A.2

[Find angles in isosceles triangles](#)

8.G.A.5 | HSG-SRT.B.5

[Geometric definitions](#)

HSG-CO.A.1

[Sequences of transformations](#)

HSG-CO.A.2

[Defining transformations](#)

HSG-CO.A.2 | HSG-CO.A.4

[Determine reflections \(advanced\)](#)

HSG-CO.A.2 | HSG-CO.A.5

[Symmetry of 2D shapes](#)

HSG-CO.A.3

[Advanced reflections](#)

HSG-CO.A.5

[Rotate shapes](#)

HSG-CO.A.5

[Rotate shapes: center \$\neq\$ \(0,0\)](#)

HSG-CO.A.5

[Proofs with transformations](#)

HSG-CO.C.9

[Determine congruent triangles](#)

HSG-SRT.B.5

[Determine similar triangles: AA](#)

HSG-SRT.B.5

[Determine similar triangles: SSS](#)

HSG-SRT.B.5

[Find angles in congruent triangles](#)

HSG-SRT.B.5

[Solve similar triangles \(advanced\)](#)

HSG-SRT.B.5

[Solve similar triangles \(basic\)](#)

HSG-SRT.B.5

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: 229-252

[Solve triangles: angle bisector theorem](#)

HSG-SRT.B.5

[Use similar & congruent triangles](#)

HSG-SRT.B.5

[Reciprocal trig ratios](#)

HSG-SRT.C.6

[Solve for a side in right triangles](#)

HSG-SRT.C.6 | HSG-SRT.C.8

[Trigonometric ratios in right triangles](#)

HSG-SRT.C.6 | HSG-SRT.C.8

[Right triangle word problems](#)

HSG-SRT.C.8

[Solve for an angle in right triangles](#)

HSG-SRT.C.8

[Special right triangles](#)

HSG-SRT.C.8