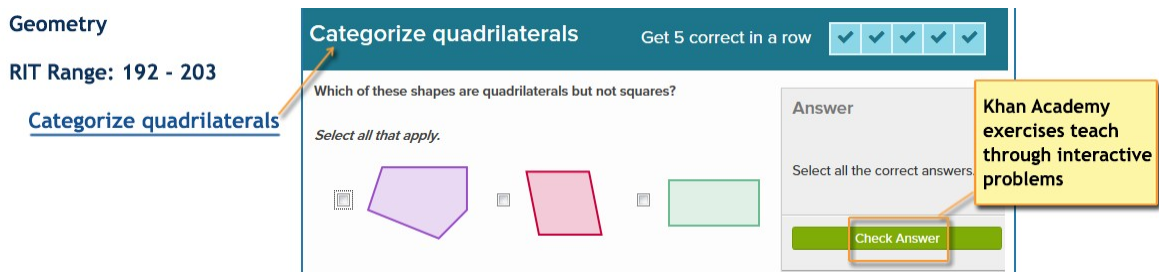


MAP to Khan Academy:

Khan Academy Practice Exercises Correlated to RIT for Common Core Math MAP Grades 6+

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 6+**

Geometry

Congruence, Similarity, Right Triangles, & Trig	P 4
Geometric Measurement and Relationships	P 6

Operations and Algebraic Thinking

Expressions and Equations	P 11
Use Functions to Model Relationships	P 19

Statistics and Probability

Interpreting Categorical and Quantitative Data	P 24
Using Sampling and Probability to Make Decisions	P 26

The Real and Complex Number Systems

Extend and Use Properties	P 27
Perform Operations	P 30
Ratios and Proportional Relationships	P 38

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: 203-212

[Axis of symmetry](#)

4.G.A.3

RIT Range: 224-227

[Vertical angles](#)

7.G.B.5

RIT Range: 228-230

[Finding angle measures 1](#)

8.G.A.5

[Finding angle measures 2](#)

8.G.A.5

[Congruent angles](#)

8.G.A.5

[Distance formula](#)

8.G.B.8

[Determine whether two polygons are similar \(intuitive mode\)](#)

8.G.A.4

[Determine whether two figures are congruent](#)

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

[Equation practice with congruent angles](#)

8.G.A.5

[Perform reflections](#)

8.G.A.1 | 8.G.A.3 | HSG-CO.A.2 | HSG-CO.A.5

[Perform rotations](#)

8.G.A.1 | 8.G.A.3 | HSG-CO.A.2 | HSG-CO.A.5

[Perform translations](#)

8.G.A.1 | 8.G.A.3 | HSG-CO.A.2 | HSG-CO.A.5

[Pythagorean theorem](#)

8.G.B.7

[Pythagorean theorem in 3D](#)

8.G.B.7

[Pythagorean theorem word problems](#)

8.G.B.7

RIT Range: > 231

[Right triangle word problems](#)

HSG-SRT.C.8

[Reason about the triangle congruence postulates](#)

HSG-CO.B.8

[Determine whether two triangles are congruent](#)

HSG-CO.C.10 | HSG-CO.C.11 | HSG-CO.C.9

[Find missing angles of congruent triangles](#)

HSG-CO.C.10

[Compass constructions 1](#)

HSG-CO.D.12

[Compass constructions 2](#)

HSG-CO.D.13

[Perform sequences of transformations and determine congruence](#)

HSG-CO.B.6

[Find the dilation that maps a given figure to another \(basic\)](#)

HSG-SRT.A.1

[Find the dilation that maps a given figure to another \(advanced\)](#)

HSG-SRT.A.1

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: > 231

Find the reflection that maps a given figure to another	HSG-CO.A.5
Find the rotation that maps one figure to another	HSG-CO.A.5
Determine whether two polygons are similar (formal mode)	HSG-CO.A.5 HSG-SRT.A.2
Find the translation that maps a given figure to another	HSG-CO.A.5
Draw the image of a dilation	HSG-SRT.A.1
Determine whether two figures are congruent	8.G.A.2 HSG-CO.B.6
Line and angle proofs	HSG-CO.C.9
Perform dilations	HSG-SRT.A.1
Perform reflections	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Perform rotations	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Perform translations	8.G.A.1 8.G.A.3 HSG-CO.A.2 HSG-CO.A.5
Special right triangles	HSG-SRT.C.8
Precisely defining rigid transformations	HSG-CO.A.2
Reciprocal trig functions	HSG-SRT.C.6
Draw the image of a reflection	HSG-CO.A.5
Advanced reflections	HSG-CO.A.5
Draw the image of a rotation about the origin	HSG-CO.A.5
Draw the image of a rotation about an arbitrary point	HSG-CO.A.5
Determine whether triangles are similar using the AA criterion	HSG-SRT.A.2 HSG-SRT.A.3
Determine whether triangles are similar using the SSS criterion	HSG-SRT.A.2 HSG-SRT.A.3
Find missing sides of similar triangles (basic)	HSG-SRT.B.5
Find missing sides of similar triangles (advanced)	HSG-SRT.B.5
Solve problems with similar and congruent triangles	HSG-SRT.B.5
Symmetry of two-dimensional shapes	HSG-CO.A.3
Draw the image of a translation	HSG-CO.A.5
Find missing angles of triangles	HSG-CO.C.10
Trigonometric functions and side ratios in right triangles	HSG-SRT.C.6 HSG-SRT.C.7
Trigonometry 0.5	HSG-SRT.C.6
Find trigonometric ratios in right triangles	HSG-SRT.C.6

Geometry

Congruence, Similarity, Right Triangles, & Trig

Standards Alignment

RIT Range: > 231

[Trigonometry 1.5](#)

HSG-SRT.C.6

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

HSG-SRT.C.6

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: < 160

[Comparing shapes](#)

K.G.B.4

[Composing shapes](#)

K.G.B.6

[Naming shapes](#)

K.G.A.1

RIT Range: 161-178

[Naming shapes 3](#)

1.G.A.1

[Measuring lengths 1](#)

1.MD.A.2

[Order by length](#)

1.MD.A.1

RIT Range: 179-191

[Estimating lengths](#)

2.MD.A.3

[Length word problems](#)

2.MD.B.5

[Measuring lengths 2](#)

2.MD.A.1

[Measuring lengths with different units](#)

2.MD.A.2

[Naming shapes 4](#)

2.G.A.1

RIT Range: 192-202

[Find area by counting unit squares](#)

3.MD.C.6

[Comparing area and perimeter](#)

3.MD.D.8

[Comparing areas by multiplying](#)

3.MD.C.7b

[Decompose figures to find area 2](#)

3.MD.C.7

[Estimating mass](#)

3.MD.A.2

[Estimating volume](#)

3.MD.A.2

[Find a missing side length when given area of a rectangle](#)

3.MD.C.7

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 192-202

Find a missing side length when given perimeter	3.MD.D.8
Create rectangles with a given area	3.MD.C.6
Transition from counting unit squares to area formula	3.MD.C.7
Arithmetic word problems with mass	3.MD.A.2
Measure to find perimeter	3.MD.D.8
Measuring area with unit squares	3.MD.C.6
Find perimeter by counting unit squares	3.MD.D.8
Finding perimeter	3.MD.D.8
Find perimeter when given side lengths	3.MD.D.8
Perimeter word problems	3.MD.D.8
Understanding area	3.MD.C.5
Arithmetic word problems with volume	3.MD.A.2

RIT Range: 203-212

Angle types	4.G.A.1
Area problems	4.MD.A.3
Area and perimeter of rectangles word problems	4.MD.A.3
Benchmark angles	4.MD.C.5
Classifying shapes by line and angle types	4.G.A.2
Decomposing angles	4.MD.C.7
Drawing angles	4.MD.C.6
Drawing rays, lines, and line segments	4.G.A.1
Drawing right, acute, and obtuse angles	4.G.A.1
Converting larger units to smaller units	4.MD.A.1
Measuring angles	4.MD.C.6
Converting money word problems	4.MD.A.2
Time word problems	4.MD.A.2
Naming angles	4.MD.C.5
Quadrilateral types	4.G.A.2

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 203-212

Recognizing rays, lines, and line segments	4.G.A.1
Recognizing angles	4.G.A.1
Recognizing parallel and perpendicular lines	4.G.A.1
Recognizing triangle types	4.G.A.2
Unit sense	4.MD.A.1

RIT Range: 213-219

Coordinate plane word problems in the first quadrant	5.G.A.2
Decompose figures to find volume	5.MD.C.5
Graphing points	5.G.A.2
Properties of shapes	5.G.B.3
Shapes on the coordinate plane	5.G.A.2
Volume 1	5.MD.C.5
Volume word problems	5.MD.C.5
Volume with unit cubes 1	5.MD.C.4
Volume formula intuition	5.MD.C.5
Comparing volumes with unit cubes	5.MD.C.4

RIT Range: 220-223

Area of parallelograms	6.G.A.1
Area of triangles	6.G.A.1
Area of composite figures	6.G.A.1
Areas of shapes on grids	6.G.A.1
Area of trapezoids	6.G.A.1
Area challenge	6.G.A.1
Drawing polygons with coordinates	6.G.A.3
Drawing polygons with coordinates 2	6.G.A.3
Nets of 3D figures	6.G.A.4
Quadrilateral problems on the coordinate plane	6.G.A.3
Surface area using nets	6.G.A.4

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: 220-223

Surface area	6.G.A.4
Volume with fractions	6.G.A.2
Volume with unit cubes 2	6.G.A.2
Volume word problems with fractions and decimals	6.G.A.2

RIT Range: 224-227

Area of a circle	7.G.B.4
Problem solving with area and circumference of circles	7.G.B.4
Area and circumference of parts of circles	7.G.B.4
Complementary and supplementary angles	7.G.B.5
Constructing scale drawings	7.G.A.1
Constructing triangles	7.G.A.2
Finding missing angles	7.G.B.5
Identifying supplementary, complementary, and vertical angles	7.G.B.5
Interpreting scale drawings	7.G.A.1
Quadrilateral angles	7.G.B.5
Radius, diameter, and circumference	7.G.B.4
Shaded areas	7.G.B.6
Slicing 3D figures	7.G.A.3
Unknown angle algebra problems	7.G.B.5
Triangle inequality theorem	7.G.A.2
Vertical angles	7.G.B.5

RIT Range: 228-230

Parallel lines 1	8.G.A.5
Equation practice with congruent angles	8.G.A.5
Solid geometry	8.G.C.9
Volume word problems with cones, cylinders, and spheres	8.G.C.9 HSG-GMD.A.3

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: > 231

Arc measure	HSG-C.A.2
Arc measure with equations	HSG-C.A.2
Areas of circles and sectors	HSG-C.B.5
Radians and arc length	HSG-C.B.5
Tangents of circles problem solving	HSG-C.A.2 HSG-C.A.3
Arc length, circumference, and central angles	HSG-C.B.5
Constructing a line tangent to a circle	HSG-C.A.4
Coordinate plane word problems with polygons	HSG-GPE.B.7
Cross sections of 3D objects	HSG-GMD.B.4
Dividing line segments	HSG-GPE.B.6
Find the features of a circle from its standard equation	HSG-GPE.A.1
Find the features of a circle from its expanded equation	HSG-GPE.A.1
Write the equation of a parabola from its focus and directrix	HSG-GPE.A.2
Find the features of a circle from its graph	HSG-GPE.A.1
Points inside, on, or outside of a circle	HSG-GPE.B.4
Graph a circle according to its features	HSG-GPE.A.1
Graph a circle from its standard equation	HSG-GPE.A.1
Graph a circle from its expanded equation	HSG-GPE.A.1
Inscribed angles	HSG-C.A.2
Inscribed shapes problem solving	HSG-C.A.2
Inscribed quadrilaterals	HSG-C.A.3
Inscribing and circumscribing circles on a triangle	HSG-C.A.3
Equations of parallel and perpendicular lines	HSG-GPE.B.5
Midpoint formula	HSG-GPE.B.6
Shift and scale parabolas	HSG-GPE.A.2
Parabola intuition 2	HSG-GPE.A.2
Parabola intuition 3	HSG-GPE.A.2
Pythagorean theorem and the equation of a circle	HSG-GPE.A.1
Rotate 2D shapes to make 3D objects	HSG-GMD.B.4

Geometry

Geometric Measurement and Relationships

Standards Alignment

RIT Range: > 231

[Surface and volume density word problems](#)

HSG-MG.A.2

[Volume word problems with cones, cylinders, and spheres](#)

8.G.C.9 | HSG-GMD.A.3

[Write the equation of a circle](#)

HSG-GPE.A.1

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: < 160

[Put together](#)

K.OA.A.1

[Take apart](#)

K.OA.A.1

RIT Range: 161-178

[Adding three numbers](#)

1.OA.A.2

[Addition and subtraction within 10](#)

1.OA.D.8

[Addition and subtraction word problems 1](#)

1.OA.A.1

[Addition and subtraction word problems 2](#)

1.OA.A.1

[Word problems with "more" and "fewer" 1](#)

1.OA.A.1

[Word problems with "more" and "fewer" 2](#)

1.OA.A.1

[Relate addition and subtraction](#)

1.OA.B.4

[Two-digit place value challenge](#)

1.NBT.B.2

RIT Range: 179-191

[Addition within 100](#)

2.NBT.B.5

[Addition and subtraction within 100 word problems 1](#)

2.OA.A.1

[Addition and subtraction within 100 word problems 2](#)

2.OA.A.1

[Word problems within 100 with "more" and "fewer" 1](#)

2.OA.A.1

[Word problems within 100 with "more" and "fewer" 2](#)

2.OA.A.1

[Find the missing number \(addition and subtraction within 100\)](#)

2.OA.A.1

[Length word problems](#)

2.OA.A.1

[Solving problems with picture graphs 1](#)

2.OA.A.1

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: 192-202

Addition within 1000	3.NBT.A.2
Associative property of multiplication	3.OA.B.5
Commutative property of multiplication	3.OA.B.5
Letters and symbols in multiplication and division equations	3.OA.B.6
Addition using groups of 10 and 100	3.NBT.A.2
Properties of multiplication	3.OA.B.5
Relate division to multiplication	3.OA.B.6
Relate division to multiplication word problems	3.OA.B.6
Two-step word problems with addition, subtraction, multiplication, and division	3.OA.D.8

RIT Range: 203-212

Multiplication and division word problems	4.OA.A.2
Multiplication without regrouping	4.NBT.B.5
Multiplication with carrying	4.NBT.B.5
Multiplying 2-digit numbers	4.NBT.B.5
Multiplication using place value understanding	4.NBT.B.5
Multiplying 2 digits by 2 digits with area models	4.NBT.B.5
Multiplying 4 digits by 1 digit with visual models	4.NBT.B.5
Multi-step word problems with whole numbers	4.OA.A.3

RIT Range: 213-219

Creating expressions with parentheses	5.OA.A.2
Evaluating expressions with parentheses	5.OA.A.1
Multiplying fractions by fractions word problems	5.NF.B.6
Powers of ten	5.NBT.A.2
Translating expressions with parentheses	5.OA.A.2
Understanding moving the decimal	5.NBT.A.2

RIT Range: 220-223

Combining like terms	6.EE.A.3
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Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: 220-223

Combining like terms with distribution	6.EE.A.3
Dependent and independent variables	6.EE.C.9
Distributive property with variables	6.EE.A.3
Writing one-step equations word problems	6.EE.B.6 6.EE.B.7
Equivalent expressions with distribution and combining like terms	6.EE.A.3 6.EE.A.4
Evaluating expressions with variables word problems	6.EE.A.2
Order of operations 2	6.EE.A.1
Find the mistake in solving one-step equations	6.EE.B.7
Inequalities on a number line	6.EE.B.8
Writing inequalities to describe real-world situations	6.EE.B.6 6.EE.B.8
One-step equations with multiplication and division	6.EE.B.7 HSA-REI.B.3
One-step equation intuition	6.EE.B.7
One-step equations with addition and subtraction	6.EE.B.7 HSA-REI.B.3
One-step addition and subtraction equations with fractions and decimals	6.EE.B.7
One-step multiplication and division equations with fractions and decimals	6.EE.B.7
Exponents	6.EE.A.1
Powers of fractions	6.EE.A.1
Testing solutions of equations using substitution	6.EE.B.5
Testing solutions of inequalities	6.EE.B.8
Writing expressions with variables	6.EE.A.2
Writing expressions with variables and parentheses	6.EE.A.2
Writing basic algebraic expressions word problems 2	6.EE.A.2
Writing basic expressions with variables	6.EE.A.2
Writing basic algebraic expressions word problems	6.EE.A.2

RIT Range: 224-227

Combining like terms with negative coefficients	7.EE.A.1
Combining like terms with distribution and negative numbers	7.EE.A.1
Discount, tax, and tip word problems	7.EE.B.3

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: 224-227

Equivalent expressions with negative numbers and the distributive property	7.EE.A.1
Factoring algebraic expressions using the distributive property	7.EE.A.1
Interpreting linear expressions	7.EE.A.2
Two-step equations	7.EE.B.4 HSA-REI.B.3
Linear equation word problems	7.EE.B.4
Combining like terms with rational coefficients	7.EE.A.1
Markup and commission word problems	7.EE.B.3
Multi-step rational number word problems	7.EE.B.3
One-step inequalities	7.EE.B.4b HSA-REI.B.3
Two-step equations with decimals and fractions	7.EE.B.4

RIT Range: 228-230

Adding and subtracting in scientific notation	8.EE.A.4
Age word problems	8.EE.C.8
Approximating with powers of 10	8.EE.A.3
Rates and proportional relationships	8.EE.B.5
Complete missing values in linear equations according to the number of solutions	8.EE.C.7
Computing in scientific notation	8.EE.A.4
Analyze the solutions of systems of equations algebraically	8.EE.C.8 HSA-SSE.B.3
Cube roots	8.EE.A.2
Equations with square roots and cube roots	8.EE.A.2
Using exponent rules to evaluate expressions	8.EE.A.1
Positive and negative exponents	8.EE.A.1
Graph from a standard form equation	8.EE.C.7 HSA-REI.D.10
Analyze the solutions of systems of equations graphically	8.EE.C.8 HSA-REI.D.10 HSA-REI.D.11
Solve systems of equations graphically	8.EE.C.8 HSA-REI.C.6 HSA-REI.D.10 HSA-REI.D.11
Graphing proportional relationships	8.EE.B.5
Graphing solutions to two-variable linear equations	8.EE.C.7 HSA-REI.B.3 HSA-REI.D.10

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: 228-230

Linear equations with variables on both sides	8.EE.C.7 HSA-REI.B.3
More square and cube root problems	8.EE.A.2
Multiplying and dividing scientific notation	8.EE.A.4
Linear equations with parentheses	8.EE.C.7 HSA-REI.B.3
Linear equations with parentheses (decimals and fractions)	8.EE.C.7 HSA-REI.B.3
Multiplication and division with powers of ten	8.EE.A.3
Roots of decimals and fractions	8.EE.A.2
Scientific notation	8.EE.A.4
Scientific notation intuition	8.EE.A.4
Determine the number of solutions of a linear equation	8.EE.C.7
Square roots of perfect squares	8.EE.A.2
Solve any system of two linear equations	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.6 HSA-SSE.B.3
Solve systems of linear equations with elimination (advanced)	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.6 HSA-SSE.B.3
Solve systems of linear equations with elimination (basic)	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.6
Solve systems of linear equations with substitution	8.EE.C.8 HSA-REI.C.6 HSA-SSE.B.3
Equivalent systems of equations	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.5
Systems of linear equations word problems	8.EE.C.8 HSA-APR.A.1 HSA-CED.A.2 HSA-CED.A.3 HSA-REI.C.6 HSA-SSE.B.3
Linear equations with variables on both sides (decimals and fractions)	8.EE.C.7 HSA-REI.B.3
Check solutions to systems of equations	8.EE.C.8

RIT Range: > 231

Add and subtract polynomials with one variable	HSA-APR.A.1
Simplify numerical radical expressions with multiple terms	HSN-RN.A.2
Add and subtract polynomials with two variables	HSA-APR.A.1
Check solutions of systems of inequalities	HSA-CED.A.3
Check solutions of two-variable linear inequalities	HSA-CED.A.3
Compare expressions with unknown variables word problems	HSA-SSE.A.1 HSA-SSE.A.2

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: > 231

Solve quadratic equations by completing the square (leading coefficient is 1)	HSA-REI.B.4 HSA-SSE.B.3
Solve quadratic equations by completing the square (leading coefficient is other than 1)	HSA-REI.B.4 HSA-SSE.B.3
Rewrite quadratic expressions as perfect squares	HSA-REI.B.4
Compound inequalities	HSA-REI.B.3
Linear models word problems	HSA-CED.A.2 HSA-CED.A.4
Analyze the solutions of systems of equations algebraically	8.EE.C.8 HSA-SSE.B.3
Converting between slope-intercept and standard form	HSA-SSE.B.3
Determine the number of solutions of a quadratic equation	HSA-SSE.B.3
Equivalent forms of exponential expressions	HSA-SSE.B.3
Evaluate expressions with unknown variables (basic)	HSA-SSE.A.2
Evaluate expressions with unknown variables (advanced)	HSA-SSE.A.2
Factor simple special products	HSA-SSE.A.2
Factor differences of squares	HSA-SSE.A.2
Factor polynomials with special product forms	HSA-SSE.A.2 HSA-SSE.B.3
Factor quadratics with a leading coefficient of 1	HSA-SSE.A.2 HSA-SSE.B.3
Factor polynomials using quadratic methods	HSA-SSE.A.2 HSA-SSE.B.3
Factor quadratics with a leading coefficient other than 1	HSA-SSE.B.3
Factor polynomials with quadratic forms	HSA-SSE.A.2
Factor perfect squares	HSA-SSE.A.2
Find special products of binomials (advanced)	HSA-APR.A.1
Multiply monomials by polynomials	HSA-APR.A.1
Multiply monomials by monomials	HSA-APR.A.1
Find the zeros of polynomials	HSA-SSE.B.3
Graph from slope-intercept equation	HSA-REI.D.10
Graph from a standard form equation	8.EE.C.7 HSA-REI.D.10
Analyze the solutions of systems of equations graphically	8.EE.C.8 HSA-REI.D.10 HSA-REI.D.11
Constraint solution sets of two-variable linear inequalities	HSA-CED.A.3
Graph inequalities and check solutions	HSA-CED.A.3 HSA-REI.D.12

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: > 231

Solve systems of equations graphically	8.EE.C.8 HSA-REI.C.6 HSA-REI.D.10 HSA-REI.D.11
Constraint solution sets of systems of linear inequalities	HSA-CED.A.3
Graph systems of inequalities and check solutions	HSA-CED.A.3 HSA-REI.D.12
Graphing linear functions word problems	HSA-REI.D.10
Graphing solutions to two-variable linear equations	8.EE.C.7 HSA-REI.B.3 HSA-REI.D.10
Find the inequality representing a given graph	HSA-CED.A.3
Intercepts from a table	HSA-REI.D.10
Interpreting linear formulas word problems	HSA-SSE.A.1
Interpreting graphs of linear and nonlinear functions	HSA-REI.D.10
Interpreting linear graphs word problems	HSA-REI.D.10
Interpret rate of change of exponential models for a different unit	HSA-SSE.B.3
Interpret rate of change of exponential models with manipulation	HSA-SSE.B.3
Estimate the solution of advanced equations	HSA-REI.D.11
Interpret quadratic models	HSA-SSE.B.3
One-step equations with multiplication and division	6.EE.B.7 HSA-REI.B.3
Two-step equations	7.EE.B.4 HSA-REI.B.3
Linear equations with variables on both sides	8.EE.C.7 HSA-REI.B.3
Multi-step linear inequalities	HSA-REI.B.3
Manipulate formulas	HSA-CED.A.4
Two-variable linear inequalities word problems	HSA-CED.A.3 HSA-SSE.A.1
Systems of linear inequalities word problems	HSA-CED.A.3 HSA-SSE.A.1
Construct one-variable equations and inequalities of all types	HSA-CED.A.1
Multiply binomials by binomials	HSA-APR.A.1
Find special products of binomials (basic)	HSA-APR.A.1
Multiply binomials by polynomials	HSA-APR.A.1
Linear equations with parentheses	8.EE.C.7 HSA-REI.B.3
Linear equations with parentheses (decimals and fractions)	8.EE.C.7 HSA-REI.B.3
Nested fractions	HSA-SSE.A.2

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: > 231

One-step equations with addition and subtraction	6.EE.B.7 HSA-REI.B.3
One-step inequalities	7.EE.B.4b HSA-REI.B.3
Checking solutions to two-variable linear equations	HSA-REI.D.10
Solve quadratic equations using the quadratic formula	HSA-REI.B.4
Solve quadratic equations with either real or complex solutions	HSA-REI.B.4 HSN-CN.C.7
Rewrite exponential expressions	HSA-SSE.B.3
Interpret rate of change of exponential models in terms of time	HSA-SSE.B.3
Find features of quadratic functions	HSA-SSE.B.3
Slope from a graph	HSA-REI.D.10
Slope from an equation in slope-intercept form	HSA-REI.D.10
Slope from an equation in standard form	HSA-REI.D.10
Slope from two solutions	HSA-REI.D.10
Slope-intercept equation from a graph	HSA-REI.D.10
Slope-intercept equation from two solutions	HSA-REI.D.10
Solutions to quadratic equations	HSA-REI.B.4
Solve exponential equations using properties of exponents (advanced)	HSA-SSE.B.3
Solve exponential equations using properties of exponents (basic)	HSA-SSE.B.3
Solve linear equations with unknown coefficients	HSA-REI.B.3
Solve factorable quadratic equations (leading coefficient is 1)	HSA-REI.B.4 HSA-SSE.B.3
Solve factorable quadratic equations (leading coefficient is other than 1)	HSA-REI.B.4 HSA-SSE.B.3
Solve quadratic equations by taking the square root	HSA-REI.B.4
Solve quadratic equations by using structure	HSA-REI.B.4 HSA-SSE.B.3
Use equations with unknown variables to rewrite expressions	HSA-SSE.A.1 HSA-SSE.A.2
Solve any system of two linear equations	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.6 HSA-SSE.B.3
Solve systems of linear equations with elimination (advanced)	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.6 HSA-SSE.B.3
Solve systems of linear equations with elimination (basic)	8.EE.C.8 HSA-APR.A.1 HSA-REI.C.6
Solve systems of linear equations with substitution	8.EE.C.8 HSA-REI.C.6 HSA-SSE.B.3
Graphically interpret the solutions of equations	HSA-REI.D.11

Operations and Algebraic Thinking

Expressions and Equations

Standards Alignment

RIT Range: > 231

[Equivalent systems of equations](#)

8.EE.C.8 | HSA-APR.A.1 | HSA-REI.C.5

[Systems of linear equations word problems](#)

8.EE.C.8 | HSA-APR.A.1 | HSA-CED.A.2 | HSA-CED.A.3 | HSA-REI.C.6 | HSA-SSE.B.3

[Understand the process for solving quadratic equations](#)

HSA-REI.A.1 | HSA-REI.B.4

[Understanding the process for solving linear equations](#)

HSA-REI.A.1

[Linear equations with variables on both sides \(decimals and fractions\)](#)

8.EE.C.7 | HSA-REI.B.3

[Generating input-output pairs of a function](#)

HSA-REI.D.10

[Writing the equation of a line in any form](#)

HSA-REI.D.10

Operations and Algebraic Thinking

Use Functions to Model Relationships

Standards Alignment

RIT Range: 213-219

[Coordinate plane word problems in the first quadrant](#)

5.G.A.2

[Graphing points](#)

5.G.A.2

RIT Range: 228-230

[Comparing linear functions](#)

8.F.A.2 | HSF-IF.C.9

[Comparing linear functions word problems](#)

8.F.A.2 | HSF-IF.C.9 | HSF-LE.B.5

[Constructing linear functions word problems](#)

8.F.B.4 | HSF-BF.A.1 | HSF-LE.A.2 | HSF-LE.B.5

[Domain and range from graph](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.B.5

[Domain of algebraic functions](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.B.5

[Interpreting function notation word problems](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.A.2

[Evaluating functions](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.A.2

[Evaluating function expressions](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.A.2

[Matching inputs to function outputs](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.A.2

[Writing function rules from equations](#)

8.F.A.1 | HSF-IF.A.1 | HSF-IF.A.2 | HSF-LE.A.2

[Graph from slope-intercept equation](#)

8.F.A.1 | 8.F.A.3

[Graph from a standard form equation](#)

8.F.A.1

[Graphing linear equations](#)

8.F.B.4 | 8.F.B.5

[Graphing solutions to two-variable linear equations](#)

8.F.A.1

Operations and Algebraic Thinking

Use Functions to Model Relationships

Standards Alignment

RIT Range: 228-230

Ordered pair solutions to linear equations	8.F.B.4
Increasing and decreasing intervals	8.F.B.5 HSF-IF.B.4
Intercepts from a table	8.F.A.1
Interpreting graphs word problems	8.F.B.5 HSF-IF.B.4
Interpreting linear relationships	8.F.B.5
Domain of modeling functions	8.F.A.1 HSF-IF.A.1 HSF-IF.B.5
Interpreting linear formulas word problems	8.F.A.3 8.F.B.4 HSF-LE.B.5
Interpreting graphs of linear and nonlinear functions	8.F.B.5
Intercepts from a graph	8.F.A.1
Linear and nonlinear functions	8.F.A.3
Checking solutions to two-variable linear equations	8.F.A.1
Positive and negative intervals	8.F.B.5 HSF-IF.B.4
Recognizing functions from graphs	8.F.A.1 HSF-IF.A.1
Recognizing maxima and minima	8.F.B.5 HSF-IF.B.4
Recognizing functions from tables	8.F.A.1 HSF-IF.A.1
Slope from a graph	8.F.B.4 HSF-LE.A.2
Slope from an equation in slope-intercept form	8.F.B.4
Slope from an equation in standard form	8.F.B.4 HSF-LE.A.2
Slope from two solutions	8.F.B.4 HSF-LE.A.2
Slope-intercept equation from a graph	8.F.A.1 8.F.A.3 8.F.B.4 HSF-LE.A.2
Slope-intercept equation from two solutions	8.F.A.1 8.F.A.3 8.F.B.4 HSF-LE.A.2
Intercepts from a linear equation	8.F.A.3
Solving for the y-intercept	8.F.B.4
Generating input-output pairs of a function	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2
Writing the equation of a line in any form	8.F.A.1 8.F.A.3 8.F.B.4 HSF-LE.A.2

RIT Range: > 231

Find the next term of an arithmetic sequence, given the first few terms	HSF-IF.A.3
Find any term of an arithmetic sequence, given the formula of the sequence	HSF-IF.A.3

Operations and Algebraic Thinking

Use Functions to Model Relationships

Standards Alignment

RIT Range: > 231

Average rate of change word problems	HSF-IF.B.6
Finding average rate of change	HSF-IF.B.6
Compare properties of quadratic functions	HSF-IF.C.9
Comparing linear functions	8.F.A.2 HSF-IF.C.9
Comparing linear functions word problems	8.F.A.2 HSF-IF.C.9 HSF-LE.B.5
Compare features of functions	HSF-IF.C.9
Compare the growth rates of exponentials and polynomials	HSF-LE.A.3
Compose functions	HSF-BF.A.1
Construct exponential models according to rate of change	HSF-BF.A.1 HSF-IF.C.8 HSF-LE.A.2 HSF-LE.B.5
Linear models word problems	HSF-BF.A.1 HSF-LE.A.2 HSF-LE.B.5
Construct linear and exponential modeling functions	HSF-LE.A.2
Constructing linear functions word problems	8.F.B.4 HSF-BF.A.1 HSF-LE.A.2 HSF-LE.B.5
Point-slope form	HSF-LE.A.2 HSF-LE.B.5
Converting between slope-intercept and standard form	HSF-IF.C.8
Determine if a polynomial function is even or odd from its formula	HSF-BF.B.3
Determine the domain of advanced piecewise functions	HSF-IF.A.1
Distinguish between linear and exponential growth from tables	HSF-BF.A.1
Domain and range from graph	8.F.A.1 HSF-IF.A.1 HSF-IF.B.5
Determine the domain of advanced functions	HSF-IF.A.1
Domain and range of piecewise functions	HSF-IF.A.1 HSF-IF.B.5
Domain of algebraic functions	8.F.A.1 HSF-IF.A.1 HSF-IF.B.5
Equivalent forms of exponential expressions	HSF-IF.C.8
Evaluate composite functions from formulas	HSF-BF.A.1
Evaluate composite functions from graphs and tables	HSF-BF.A.1
Evaluating piecewise functions	HSF-IF.A.1 HSF-IF.A.2
Evaluate sequences in recursive form	HSF-IF.A.1 HSF-IF.A.2 HSF-IF.A.3
Determine if a function is even or odd from its graph	HSF-BF.B.3
Find explicit formulas for arithmetic sequences	HSF-BF.A.2 HSF-IF.A.1 HSF-IF.A.3

Operations and Algebraic Thinking

Use Functions to Model Relationships

Standards Alignment

RIT Range: > 231

Interpreting function notation word problems	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2
Evaluating functions	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2
Evaluating function expressions	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2
DEPRECATED Evaluating composite functions	HSF-BF.A.1
Matching inputs to function outputs	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2
Writing function rules from equations	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2 HSF-LE.A.2
Find the next term of a geometric sequence, given the first few terms	HSF-IF.A.3
Find any term of a geometric sequence, given the formula of the sequence	HSF-IF.A.3
Graphing parabolas in standard form	HSF-IF.C.7a
Graphing parabolas in vertex form	HSF-IF.C.7a
Graphing parabolas in all forms	HSF-IF.C.7a
Graphing linear functions word problems	HSF-IF.C.7a
Graphs of piecewise nonlinear functions	HSF-IF.C.7b
Graphs of exponentials and logarithms	HSF-IF.C.7e
Graphs of square root functions	HSF-IF.C.7b
Identify and use the different forms of quadratic functions	HSF-IF.C.8
Increasing and decreasing intervals	8.F.B.5 HSF-IF.B.4
Interpreting graphs word problems	8.F.B.5 HSF-IF.B.4
Domain of modeling functions	8.F.A.1 HSF-IF.A.1 HSF-IF.B.5
Interpreting linear formulas word problems	8.F.A.3 8.F.B.4 HSF-LE.B.5
Interpreting linear graphs word problems	HSF-LE.B.5
Interpreting linear tables word problems	HSF-IF.B.4 HSF-LE.A.2 HSF-LE.B.5
Interpret rate of change of exponential models for a different unit	HSF-IF.C.8
Interpret rate of change of exponential models with manipulation	HSF-IF.C.8
Interpret the periodicity of modeling functions	HSF-IF.B.4
Inverses of linear functions	HSF-BF.B.4a
Interpret quadratic models	HSF-IF.C.8
Model situations by composing functions	HSF-BF.A.1
Interpret rate of change of exponential models in terms of change	HSF-IF.C.8 HSF-LE.B.5

Operations and Algebraic Thinking

Use Functions to Model Relationships

Standards Alignment

RIT Range: > 231

Shift and scale parabolas	HSF-BF.B.3
Graphs of piecewise linear functions	HSF-IF.A.1
Positive and negative intervals	8.F.B.5 HSF-IF.B.4
Determine the range of a quadratic function	HSF-IF.A.1
Interpret the end behavior of modeling functions	HSF-IF.B.4
Recognizing functions from graphs	8.F.A.1 HSF-IF.A.1
Recognizing maxima and minima	8.F.B.5 HSF-IF.B.4
Recognizing functions from tables	8.F.A.1 HSF-IF.A.1
Model real-world situations with arithmetic and geometric sequences	HSF-BF.A.1 HSF-BF.A.2 HSF-IF.A.3
Find recursive formulas for arithmetic sequences	HSF-BF.A.2 HSF-IF.A.1 HSF-IF.A.3
Find recursive formulas for geometric sequences	HSF-BF.A.2 HSF-IF.A.1 HSF-IF.A.3
Interpret rate of change of exponential models in terms of time	HSF-IF.C.8 HSF-LE.B.5
Find features of quadratic functions	HSF-IF.C.8
Find explicit formulas for geometric sequences	HSF-BF.A.2 HSF-IF.A.1 HSF-IF.A.3
Shift functions	HSF-BF.B.3
Summary: Transforming functions	HSF-BF.B.3
Slope from a graph	8.F.B.4 HSF-LE.A.2
Slope from an equation in standard form	8.F.B.4 HSF-LE.A.2
Slope from two solutions	8.F.B.4 HSF-LE.A.2
Slope-intercept equation from a graph	8.F.A.1 8.F.A.3 8.F.B.4 HSF-LE.A.2
Slope-intercept equation from two solutions	8.F.A.1 8.F.A.3 8.F.B.4 HSF-LE.A.2
Understanding linear and exponential models	HSF-LE.A.1a HSF-LE.A.1b HSF-LE.A.1c
Use the zeros of a polynomial to analyze its graph	HSF-IF.C.8
Generating input-output pairs of a function	8.F.A.1 HSF-IF.A.1 HSF-IF.A.2
Writing the equation of a line in any form	8.F.A.1 8.F.A.3 8.F.B.4 HSF-LE.A.2

Statistics and Probability

Interpreting Categorical and Quantitative Data

Standards Alignment

RIT Range: 161-178

[Solving problems with bar graphs 1](#)

1.MD.C.4

RIT Range: 179-191

[Making line plots, bar graphs, and picture graphs](#)

2.MD.D.9

[Solving problems with bar graphs 2](#)

2.MD.D.10

[Solving problems with line plots 1](#)

2.MD.D.9

[Solving problems with picture graphs 1](#)

2.MD.D.10

RIT Range: 192-202

[Creating bar charts](#)

3.MD.B.3

[Marking data on line plots](#)

3.MD.B.4

[Creating picture graphs](#)

3.MD.B.3

[Reading bar charts 1](#)

3.MD.B.3

[Reading bar graphs 2](#)

3.MD.B.3

[Reading pictographs 1](#)

3.MD.B.3

[Reading picture graphs 2](#)

3.MD.B.3

[Reading bar graphs 1](#)

3.MD.B.3

[Reading picture graphs 1](#)

3.MD.B.3

RIT Range: 203-212

[Interpreting dot plots with fraction addition and subtraction](#)

4.MD.B.4

RIT Range: 213-219

[Interpreting dot plots with fraction operations](#)

5.MD.B.2

RIT Range: 220-223

[Reading box plots](#)

6.SP.A.2 | 6.SP.A.3 | 6.SP.B.4 | 6.SP.B.5

[Reading dot plots and frequency tables](#)

6.SP.B.4

[Creating box plots 2](#)

6.SP.B.4

[Calculating the mean from data displays](#)

6.SP.B.4

[Clusters, gaps, peaks, and outliers](#)

6.SP.A.2

Statistics and Probability

Interpreting Categorical and Quantitative Data

Standards Alignment

RIT Range: 220-223

Comparing data displays	6.SP.B.4
Creating box plots 1	6.SP.B.4
Creating dot plots	6.SP.B.4
Creating frequency tables	6.SP.B.4
Creating histograms	6.SP.B.4
Effects of shifting, adding, and removing a data point	6.SP.A.3
Interpreting quartiles	6.SP.B.4
Reading bar charts 3	6.SP.B.5
Reading histograms	6.SP.B.4
Shape of distributions	6.SP.A.2
Statistical questions	6.SP.A.1

RIT Range: 224-227

Comparing distributions	7.SP.B.3 7.SP.B.4
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RIT Range: 228-230

Constructing scatter plots	8.SP.A.1
Estimating equations of lines of best fit, and using them to make predictions	8.SP.A.3
Interpreting two-way tables	8.SP.A.4
Describing trends in scatter plots	8.SP.A.1
Estimating slope of line of best fit	8.SP.A.3 HSS-ID.B.6 HSS-ID.C.7
Making good scatter plots	8.SP.A.1
Eyeballing the line of best fit	8.SP.A.2 HSS-ID.B.6
Positive and negative linear correlations from scatter plots	8.SP.A.1
Two-way frequency tables	8.SP.A.4
Two-way relative frequency tables	8.SP.A.4

RIT Range: > 231

Exploring standard deviation	HSS-ID.A.3
Fitting quadratic and exponential functions to scatter plots	HSS-ID.B.6

Statistics and Probability

Interpreting Categorical and Quantitative Data

Standards Alignment

RIT Range: > 231

[Interpreting and comparing data distributions](#)

HSS-ID.A.1 | HSS-ID.A.2 | HSS-ID.A.3

[Estimating slope of line of best fit](#)

8.SP.A.3 | HSS-ID.B.6 | HSS-ID.C.7

[Eyeballing the line of best fit](#)

8.SP.A.2 | HSS-ID.B.6

[Standard deviation of a population](#)

HSS-ID.A.2

[Trends in categorical data](#)

HSS-ID.B.5

[Types of statistical studies](#)

HSS-ID.C.9

Statistics and Probability

Using Sampling and Probability to Make Decisions

Standards Alignment

RIT Range: 224-227

[Probability of rolling dice](#)

7.SP.C.8b

[Experimental probability](#)

7.SP.C.6

[Making inferences from random samples](#)

7.SP.A.1

[Simple probability](#)

7.SP.C.7

[Probability models](#)

7.SP.C.7

[Sample spaces for compound events](#)

7.SP.C.8b

[Comparing probabilities](#)

7.SP.C.5

[Making predictions with probability](#)

7.SP.C.7

[Valid claims](#)

7.SP.A.1

RIT Range: > 231

[Adding probabilities](#)

HSS-CP.B.7

[Basic set notation](#)

HSS-CP.A.1

[Dependent probability](#)

HSS-CP.B.6

[Describing subsets of sample spaces](#)

HSS-CP.A.1

[Identifying dependent and independent events](#)

HSS-CP.A.2 | HSS-CP.A.3

[Trends in categorical data](#)

HSS-CP.A.4 | HSS-CP.A.5 | HSS-CP.B.6

The Real and Complex Number Systems

Extend and Use Properties

Standards Alignment

RIT Range: < 160

[Comparing numbers of objects](#)

K.CC.C.6

RIT Range: 161-178

[Comparing two-digit numbers](#)

1.NBT.B.3

[Groups of ten objects](#)

1.NBT.B.2

[Halves and fourths](#)

1.G.A.3

[Two-digit place value challenge](#)

1.NBT.B.2

RIT Range: 179-191

[Comparing three-digit numbers](#)

2.NBT.A.4

[Equal parts of circles and rectangles](#)

2.G.A.3

[Hundreds, tens, and ones](#)

2.NBT.A.1

[Three-digit place value challenge](#)

2.NBT.A.3

RIT Range: 192-202

[Comparing fractions with the same numerator or denominator](#)

3.NF.A.3

[Comparing fractions with the same denominator](#)

3.NF.A.3

[Comparing fractions with the same numerator](#)

3.NF.A.3

[Visually comparing fractions 1](#)

3.NF.A.3

[Identifying unit fractions](#)

3.G.A.2 | 3.NF.A.1

[Equivalent fractions on the number line](#)

3.NF.A.3

[Equivalent fraction models](#)

3.NF.A.3

[Finding 1 on the number line](#)

3.NF.A.2b

[Fractions on the number line](#)

3.NF.A.2

[Unit fractions on the number line](#)

3.NF.A.2a

[Recognizing fractions 2](#)

3.NF.A.1

[Identifying numerators and denominators](#)

3.NF.A.1

[Recognizing fractions 1](#)

3.NF.A.1

[Cutting shapes into equal parts](#)

3.G.A.2 | 3.NF.A.1

The Real and Complex Number Systems

Extend and Use Properties

Standards Alignment

RIT Range: 203-212

Adding fractions with 10 and 100 as denominators	4.NF.C.5
Comparing decimals and fractions	4.NF.C.7
Comparing fractions with different numerators and denominators	4.NF.A.2
Comparing fractions and mixed numbers	4.NF.A.2
Comparing decimals visually	4.NF.C.7
Comparing multi-digit numbers	4.NBT.A.2
Comparing multi-digit numbers: Place value challenge	4.NBT.A.2
Creating largest or smallest number	4.NBT.A.1
Decimals on the number line 1	4.NF.C.6
Decimals on the number line 2	4.NF.C.6
Decompose fractions with denominators of 100	4.NF.C.5
Equivalent fractions and different wholes	4.NF.A.2
Dividing whole numbers by 10	4.NBT.A.1
Equivalent fractions	4.NF.A.1
Equivalent fractions with denominators of 10 and 100	4.NF.C.5
Equivalent fractions with denominators of 10 and 100 intuition	4.NF.C.5
Numbers in expanded form	4.NBT.A.2
Numbers in written form	4.NBT.A.2
Ordering fractions	4.NF.A.2
Place value introduction	4.NBT.A.2
Understanding place value when multiplying and dividing by 10	4.NBT.A.1
Whole number place value challenge	4.NBT.A.2
Equivalent fractions (with fraction models)	4.NF.A.1
Visually comparing fractions with unlike denominators	4.NF.A.2

RIT Range: 213-219

Comparing decimal place value	5.NBT.A.1
Graphing points	5.G.A.1
Decimal place value names	5.NBT.A.3

The Real and Complex Number Systems

Extend and Use Properties

Standards Alignment

RIT Range: 213-219

Identifying points	5.G.A.1
Powers of ten	5.NBT.A.2
Money and decimal place value intuition	5.NBT.A.1
Understanding moving the decimal	5.NBT.A.2
Understanding fractions as division	5.NF.B.3
Understanding fractions as division: word problems	5.NF.B.3
Value of a decimal digit	5.NBT.A.1

RIT Range: 220-223

Finding absolute values	6.NS.C.7
Interpreting absolute value	6.NS.C.7
Comparing absolute values	6.NS.C.7
Comparing absolute values 2	6.NS.C.7
Coordinate plane problems in all four quadrants	6.NS.C.6 6.NS.C.8
Decimals on the number line 3	6.NS.C.6
Distance between points in first quadrant of coordinate plane	6.NS.C.8
Rational numbers on the number line	6.NS.C.6
Graphing points and naming quadrants	6.NS.C.6
Points on the coordinate plane	6.NS.C.6
Interpreting negative numbers	6.NS.C.5
Negative numbers on the number line	6.NS.C.6
Negative numbers on the number line without reference to zero	6.NS.C.6
Number opposites	6.NS.C.6
Number opposites 2	6.NS.C.6
Ordering negative numbers	6.NS.C.7
Ordering rational numbers	6.NS.C.7
Reflecting points on the coordinate plane	6.NS.C.6 6.NS.C.8
Distance between points on the coordinate plane	6.NS.C.6 6.NS.C.8
Comparing positive and negative numbers on the number line	6.NS.C.7

The Real and Complex Number Systems

Extend and Use Properties

Standards Alignment

RIT Range: 220-223

[Writing numerical inequalities](#)

6.NS.C.7

RIT Range: 228-230

[Comparing irrational numbers with a calculator](#)

8.NS.A.2

[Comparing irrational numbers](#)

8.NS.A.2

[Approximating square roots](#)

8.NS.A.2

[Converting 1-digit repeating decimals to fractions](#)

8.NS.A.1

[Converting multi-digit repeating decimals to fractions](#)

8.NS.A.1

[Properties of exponents](#)

8.EE.A.1

[Recognizing rational and irrational numbers](#)

8.NS.A.1

[Approximating square roots](#)

8.NS.A.2

[Writing fractions as repeating decimals](#)

8.NS.A.1

RIT Range: > 231

[Simplify numerical radical expressions with multiple terms](#)

HSN-RN.A.2

[Rational exponents and radicals](#)

HSN-RN.A.2

[Single-step simplification of rational exponent expressions](#)

HSN-RN.A.2

[Multi-step simplification of rational exponent expressions](#)

HSN-RN.A.2

[Add, subtract, multiply, and divide numerical radical terms](#)

HSN-RN.A.2

[DEPRECATED Simplifying expressions with exponents](#)

HSN-RN.A.2

[Simplify numerical radical terms](#)

HSN-RN.A.2

[Single-step simplification of radical expressions](#)

HSN-RN.A.2

[Unit-fraction exponents and radicals](#)

HSN-RN.A.2

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: < 160

[Addition word problems within 10](#)

K.OA.A.2

[Subtraction word problems within 10](#)

K.OA.A.2

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 161-178

Adding 1s or 10s (no regrouping)	1.NBT.C.4
Adding three numbers	1.OA.A.2
Addition within 20	1.OA.C.6
Addition and subtraction word problems 1	1.OA.A.1
Addition and subtraction word problems 2	1.OA.A.1
Word problems with "more" and "fewer" 1	1.OA.A.1
Word problems with "more" and "fewer" 2	1.OA.A.1
Adding 1 or 10	1.NBT.C.4
Adding two-digit numbers (no regrouping)	1.NBT.C.4
Breaking apart two-digit addition problems	1.NBT.C.4
Regrouping when adding one-digit numbers	1.NBT.C.4

RIT Range: 179-191

Adding and subtracting within 1000 using a number line	2.NBT.B.7
Addition within 100	2.NBT.B.5
Addition and subtraction within 100 word problems 1	2.OA.A.1
Addition and subtraction within 100 word problems 2	2.OA.A.1
Word problems within 100 with "more" and "fewer" 1	2.OA.A.1
Word problems within 100 with "more" and "fewer" 2	2.OA.A.1
Adding and subtracting using a number line	2.NBT.B.7
Adding 10s and 100s (no regrouping)	2.NBT.B.7
Adding two- and three-digit numbers (no regrouping)	2.NBT.B.7
Breaking apart three-digit addition problems	2.NBT.B.7
Counting money (U.S.)	2.MD.C.8 2.NBT.A.2
Find the missing number (addition and subtraction within 100)	2.OA.A.1
Length word problems	2.MD.B.5 2.OA.A.1
Adding two-digit numbers by making tens	2.NBT.B.5
Adding two-digit numbers by making tens 2	2.NBT.B.5
Regrouping: two-digit number minus one-digit number	2.NBT.A.4

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 179-191

Select strategies for adding within 100	2.NBT.B.7
Skip-counting by 100s	2.NBT.A.2
Skip-counting by 10s	2.NBT.A.2
Skip-counting by 5s	2.NBT.A.2
Solving problems with picture graphs 1	2.OA.A.1
Subtracting 1s or 10s (no regrouping)	2.NBT.B.5
Subtraction within 20	2.NBT.B.5
Subtraction within 100	2.NBT.B.5
Subtracting 10s and 100s (no regrouping)	2.NBT.B.7
Subtracting two- and three-digit numbers (no regrouping)	2.NBT.B.7
Subtracting 1 or 10	2.NBT.B.5
Subtracting two-digit numbers (no regrouping)	2.NBT.B.5
Telling time without labels	2.MD.C.7
Telling time with a labeled clock	2.MD.C.7

RIT Range: 192-202

Addition within 1000	3.NBT.A.2 4.NBT.B.4
Associative property of multiplication	3.OA.B.5
Commutative property of multiplication	3.OA.B.5
Dividing by 1	3.OA.C.7
Dividing by 10	3.OA.C.7
Dividing by 2	3.OA.C.7
Dividing by 3	3.OA.C.7
Dividing by 4	3.OA.C.7
Dividing by 5	3.OA.C.7
Dividing by 6	3.OA.C.7
Dividing by 7	3.OA.C.7
Dividing by 8	3.OA.C.7
Dividing by 9	3.OA.C.7

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 192-202

Dividing with visuals	3.OA.A.2
Basic division	3.OA.A.4
1-digit division	3.OA.A.4
Addition using groups of 10 and 100	3.NBT.A.2
Meaning of division	3.OA.A.2
Meaning of multiplication	3.OA.A.1
Arithmetic word problems with mass	3.MD.A.2
Multiply by tens	3.NBT.A.3
Multiply by tens word problems	3.NBT.A.3
Multiplying by 0 or 1	3.OA.C.7
Multiplying by 2	3.OA.C.7
Multiplying by 3	3.OA.C.7
Multiplying by 4	3.OA.C.7
Multiplying by 5	3.OA.C.7
Multiplying by 6	3.OA.C.7
Multiplying by 7	3.OA.C.7
Multiplying by 8	3.OA.C.7
Multiplying by 9	3.OA.C.7
Multiplying with arrays	3.OA.A.1
Whole numbers on the number line	3.OA.C.7
Properties of multiplication	3.OA.B.5
Relate division to multiplication	3.OA.B.6
Relate division to multiplication word problems	3.OA.B.6
Rounding challenge	3.NBT.A.1
Rounding to the nearest 10 or 100 on the number line	3.NBT.A.1
Rounding to the nearest 10 or 100	3.NBT.A.1
Subtraction within 1000	3.NBT.A.2 4.NBT.B.4
Telling time word problems	3.MD.A.1
Telling time word problems with the number line	3.MD.A.1

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 192-202

Two-step word problems with addition, subtraction, multiplication, and division	3.OA.D.8
Arithmetic word problems with volume	3.MD.A.2

RIT Range: 203-212

Adding fractions with 10 and 100 as denominators	4.NF.C.5
Addition within 1000	3.NBT.A.2 4.NBT.B.4
Multiplication and division word problems	4.OA.A.2
Common denominators	4.NF.A.2
Comparing with multiplication	4.OA.A.1
Composite numbers	4.OA.B.4
Rewriting decimals as fractions	4.NF.C.6 4.NF.C.6
Rewriting fractions as decimals	4.NF.C.6 4.NF.C.6
Decimal intuition with grids	4.NF.C.6
Decimals in words	4.NF.C.6
Decompose fractions with denominators of 100	4.NF.C.5
Dividing whole numbers by 10	4.NBT.A.1
Divisibility intuition	4.OA.B.4
Dividing by one-digit numbers (no remainders)	4.NBT.B.6
Division with remainders	4.NBT.B.6
Division using place value understanding	4.NBT.B.6
Division with remainders introduction	4.NBT.B.6
Equivalent fractions	4.NF.A.1
Equivalent fractions with denominators of 10 and 100	4.NF.C.5
Equivalent fractions with denominators of 10 and 100 intuition	4.NF.C.5
Factor pairs	4.OA.B.4
Fraction-decimal intuition	4.NF.C.6
Identifying factors and multiples	4.OA.B.4
Converting money word problems	4.MD.A.2
Time word problems	4.MD.A.2

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 203-212

Dividing by one-digit numbers (visual models)	4.NBT.B.6
Multiplication without regrouping	4.NBT.B.5
Multiplication with carrying	4.NBT.B.5
Multiplying 2-digit numbers	4.NBT.B.5
Multiplication using place value understanding	4.NBT.B.5
Comparing with multiplication word problems	4.OA.A.1
Multiplying 2 digits by 2 digits with area models	4.NBT.B.5
Multiplying and dividing by 10 challenge (whole numbers)	4.NBT.A.1
Multiplying whole numbers by 10	4.NBT.A.1
Multiplying 4 digits by 1 digit with visual models	4.NBT.B.5
Multiplying fractions and whole numbers intuition	4.NF.B.4
Multi-step word problems with whole numbers	4.OA.A.3
Prime numbers	4.OA.B.4
Rounding whole numbers	4.NBT.A.3
Subtracting fractions with common denominators	4.NF.B.3a
Subtraction within 1000	3.NBT.A.2 4.NBT.B.4
Multiplying Fractions and Whole Numbers: Equivalent Expressions	4.NF.B.4
Understanding place value when multiplying and dividing by 10	4.NBT.A.1
Equivalent fractions (with fraction models)	4.NF.A.1

RIT Range: 213-219

Adding decimals 1	5.NBT.B.7
Adding decimals 0.5	5.NBT.B.7
Adding fractions with unlike denominators	5.NF.A.1
Adding and subtracting mixed numbers with unlike denominators 1	5.NF.A.1
Adding and subtracting fractions challenge	5.NF.A.1
Adding and subtracting fractions with unlike denominators word problems	5.NF.A.2
Adding and subtracting mixed numbers with unlike denominators 2	5.NF.A.1
Comparing decimal place value	5.NBT.A.1

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 213-219

Dividing completely	5.NBT.B.7
Dividing decimals 1	5.NBT.B.7
Dividing decimals 2	5.NBT.B.7
Dividing decimals 3	5.NBT.B.7
Dividing whole numbers by unit fractions	5.NF.B.7
Dividing unit fractions by whole numbers	5.NF.B.7
Dividing unit fractions by whole numbers introduction	5.NF.B.7
Dividing whole numbers by unit fractions introduction	5.NF.B.7
Division by 2 digits	5.NBT.B.6
Fraction multiplication as scaling	5.NF.B.5b
Multiplying and dividing decimals by 10, 100, and 1000	5.NBT.A.2
Multiplying and dividing whole numbers by 10, 100, and 1000	5.NBT.A.2
Multi-digit multiplication	5.NBT.B.5
Multiplying decimals 1	5.NBT.B.7
Multiplying decimals 2	5.NBT.B.7
Multiplying and dividing by powers of 10	5.NBT.A.2
Multiplying and dividing decimals by 10	5.NBT.A.2
Multiplying fractions by fractions word problems	5.NF.B.6
Powers of ten	5.NBT.A.2
Rounding decimals	5.NBT.A.4
Rounding decimals using a number line	5.NBT.A.4
Subtracting decimals	5.NBT.B.7
Subtracting decimals 0.5	5.NBT.B.7
Subtracting fractions with unlike denominators	5.NF.A.1
Understanding moving the decimal	5.NBT.A.2
Understanding fractions as division	5.NF.B.3
Understanding fractions as division: word problems	5.NF.B.3
Visually understanding multiplying fractions and whole numbers	5.NF.B.4a
Understanding multiplying fractions by fractions	5.NF.B.4a

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 213-219

[Using visuals to add and subtract fractions with unlike denominators](#) 5.NF.A.1

RIT Range: 220-223

[Adding and subtracting decimals word problems](#) 6.NS.B.3

[Adding decimals 2](#) 6.NS.B.3

[Factoring numerical expressions using the distributive property](#) 6.NS.B.4

[Dividing decimals 4](#) 6.NS.B.3

[Dividing fractions](#) 6.NS.A.1

[Dividing fractions by fractions and whole numbers applications](#) 6.NS.A.1

[Dividing fractions word problems](#) 6.NS.A.1

[Multi-digit division](#) 6.NS.B.2

[GCF and LCM word problems](#) 6.NS.B.4

[Find the greatest common factor of two \(or three\) integers](#) 6.NS.B.4

[Least common multiple](#) 6.NS.B.4

[Multiplying decimals 3](#) 6.NS.B.3

[Subtracting decimals 2](#) 6.NS.B.3

[Understanding dividing fractions by fractions](#) 6.NS.A.1

RIT Range: 224-227

[Adding and subtracting negative fractions](#) 7.NS.A.1

[Subtracting negative numbers intro](#) 7.NS.A.1

[Adding negative numbers intro](#) 7.NS.A.1

[Negative number addition and subtraction: word problems](#) 7.NS.A.1

[Comparing rational numbers](#) 7.NS.A.2

[Simplifying hairy fractions](#) 7.NS.A.3

[Converting fractions to decimals](#) 7.NS.A.2

[Dividing mixed numbers](#) 7.NS.A.2

[Whole number exponents with integer bases 2](#) 7.NS.A.2

[Whole number exponents with integer bases](#) 7.NS.A.2

[Exponents with negative fractional bases](#) 7.NS.A.2

The Real and Complex Number Systems

Perform Operations

Standards Alignment

RIT Range: 224-227

Classifying numbers	7.NS.A.3
Integer addition and subtraction: find the missing value	7.NS.A.1
Integer addition and subtraction	7.NS.A.1
Integer addition and subtraction with substitution	7.NS.A.1
Multiplying and dividing negative numbers	7.NS.A.2
Integer addition and subtraction: equations and number lines	7.NS.A.1
Negative number addition and subtraction: equivalent expressions	7.NS.A.1
Negative number addition and subtraction: interpretation problems	7.NS.A.1
Multiplying and dividing negative numbers: word problems	7.NS.A.2
Order of operations with negative numbers	7.NS.A.2
Signs of sums	7.NS.A.1
Integer addition and subtraction: number line interpretation	7.NS.A.1
Understanding negative number addition and subtraction with variables	7.NS.A.1

RIT Range: > 231

Add and subtract complex numbers	HSN-CN.A.2
Simplify powers of the imaginary unit	HSN-CN.A.1 HSN-CN.A.2
Measurement precision	HSN-Q.A.3
Multiply complex numbers by real or imaginary numbers	HSN-CN.A.2
Multiply complex numbers	HSN-CN.A.2
Real and imaginary parts of complex numbers	HSN-CN.A.1
Simplify square roots of negative numbers	HSN-CN.A.1
Classify complex numbers	HSN-CN.A.1
Interpret units in formulas	HSN-Q.A.1

The Real and Complex Number Systems

Ratios and Proportional Relationships

Standards Alignment

RIT Range: 203-212

Converting larger units to smaller units	4.MD.A.1
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The Real and Complex Number Systems

Ratios and Proportional Relationships

Standards Alignment

RIT Range: 203-212

Converting money word problems	4.MD.A.2
Time word problems	4.MD.A.2
Unit sense	4.MD.A.1

RIT Range: 213-219

Converting units word problems (metric)	5.MD.A.1 5.MD.A.1
Converting units (metrics)	5.MD.A.1
Converting units (US customary)	5.MD.A.1
Converting units word problems (US customary)	5.MD.A.1

RIT Range: 220-223

Comparing rates	6.RP.A.2 6.RP.A.3
Finding percents	6.RP.A.3
Percent word problems	6.RP.A.3
Basic rate problems	6.RP.A.2 6.RP.A.3
Ratio word problems	6.RP.A.3
Basic ratios	6.RP.A.1
Ratio tables	6.RP.A.3
Units	6.RP.A.3

RIT Range: 224-227

Identifying proportional relationships	7.RP.A.2a
Identifying proportional relationships with graphs	7.RP.A.2a
Proportion word problems	7.RP.A.3
Discount, tax, and tip word problems	7.RP.A.3
Interpreting graphs of proportional relationships	7.RP.A.2d
Markup and commission word problems	7.RP.A.3
Solving proportions	7.RP.A.3
Rate problems with fractions	7.RP.A.1
Writing proportions	7.RP.A.3

The Real and Complex Number Systems

Ratios and Proportional Relationships

Standards Alignment

RIT Range: 224-227

[Writing proportional equations](#)

7.RP.A.2c