## 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 ${ }^{\circledR}$ Growth ${ }^{\text {TM }}$ test sub-goals and RIT ranges to Khan Academy ${ }^{\circledR}$ exercises. The Khan Academy 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 Growth RIT scores and the Khan Academy exercises was determined by using our 2015 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.

## Terms of Use

These Terms of Use permit you to use this document for your personal, non-commercial use only. You must not reproduce, distribute, modify, create derivative works of, publicly display, publicly perform, republish, download, store or transmit any of the material on this document, except you may print or download one copy of a reasonable number of pages of this document for your own personal, noncommercial use and not for further reproduction, publication or distribution. You must not modify copies of this document. You must not delete or alter any copyright, trademark or other proprietary rights notices from this document. If you breach the Terms of Use your right to use the document will cease immediately and you must, at the option of NWEA ${ }^{\circledR}$, return or destroy any copies of the document you have made. No right, title or interest in or to the document or any content on the document is transferred to you, and all rights not expressly granted are reserved by NWEA or their respective owner (see below). Any use of the document not expressly permitted by these Terms of Use is a breach of these Terms of Use and may violate copyright, trademark and other laws.

This document contains links to Khan Academy sites, materials and/or resources ("Khan Materials"). The use of the Khan Materials by NWEA is by license. Khan Academy is the respective owner of the Khan Materials. Use of the Khan Materials by NWEA in no way represents or suggests that Khan Academy endorses NWEA. All Khan Academy content is available for free at www.khanacademy.org.

The Khan Materials are provided for your convenience only. NWEA has no control over the contents of the Khan Materials and accepts no responsibility for them or for any loss or damage that may arise from your use of them. The information contained in this document, including the Khan Materials, are provided "as-is" and "as available" without any warranty of any kind, express or implied. NWEA does not warrant the accuracy, completeness or usefulness of the Khan Materials or any other information in this document and NWEA expressly disclaims all liability and responsibility arising from any reliance placed on the Khan Materials and/or any other information in this document. If you decide to access any of the Khan Materials, you do so entirely at your own risk and subject to the terms and conditions of use for the Khan Materials.

NWEA disclaims all warranties of any kind, whether express or implied, statutory or otherwise, including but not limited to any warranties of merchantability, non-infringement and fitness for particular purpose. In no event will NWEA be liable for damages of any kind, under any legal theory, arising out of or in connection with your use, or inability to use, this document and/or the information contained within it, including any direct, indirect, special, consequential, incidental or punitive damages. Any dispute or claim arising from or related to this document shall be governed and construed with the laws of the State or Oregon and any suit or action arising out of this document shall be instituted exclusively in the court of the State of Oregon and County of Multnomah.

The Khan Academy ${ }^{\circledR}$ is a registered trademark of Khan Academy. MAP ${ }^{\circledR}$ is a registered trademark of NWEA. You must not use such marks without the prior written permission of their respective owners. NWEA may update the content on this document from time to time, but its content is not necessarily complete or up-to-date. Any of the material in this document may be out of date at any given time, and NWEA is under no obligation to update such material. However, in the event NWEA, in its sole discretion updates this document, your continued use of it following the posting of revised Terms of Use means that you accept and agree to the changes.

# 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. 38
Geometry
Geometric Measurement and Relationships ..... Pg. 43
Congruence, Similarity, Right Triangles, \& Trig ..... Pg. 51
Statistics and Probability
Interpreting Categorical and Quantitative Data ..... Pg. 55
Using Sampling and Probability to Make Decisions ..... Pg. 58
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: <160
Making small numbers in different ways ..... K.OA.A. 3
RIT Range: 161-178
Relate addition and subtraction ..... 1.OA.B. 4
Equal sign ..... 1.OA.D. 7
Find missing number (add and subtract within 20) ..... 1.OA.D. 8
RIT Range: 179-191
Add and subtract on the number line word problems ..... 2.MD.B. 6
RIT Range: 192-202
Relate division to multiplication word problems ..... 3.OA.A. 3 | 3.OA.B. 6
Find missing divisors and dividends (1-digit division) ..... 3.OA.A. 4
Find missing factors (1-digit multiplication) ..... 3.OA.A. 4
Letters and symbols in multiplication and division equations ..... 3.OA.A. 4
Associative property of multiplication ..... 3.OA.B. 5
Commutative property of multiplication ..... 3.OA.B. 5
Distributive property of multiplication ..... 3.OA.B. 5
RIT Range: 203-212
Compare with multiplication ..... 4.OA.A. 1
Multi-step word problems with whole numbers ..... 4.OA.A. 3
Represent multi-step word problems using equations ..... 4.OA.A. 3
RIT Range: 213-219
Powers of ten ..... 5.NBT.A. 2
Evaluate expressions with parentheses ..... 5.OA.A. 1
Create expressions with parentheses ..... 5.OA.A. 2
Translate expressions with parentheses ..... 5.OA.A. 2
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 220-223
Exponents ..... 6.EE.A. 1
Exponents (basic) ..... 6.EE.A. 1
Powers of fractions ..... 6.EE.A. 1
Variable expressions with exponents ..... 6.EE.A. 1
Order of operations challenge ..... 6.EE.A. 1 | 6.EE.A. 2
Evaluating expressions with multiple variables ..... 6.EE.A. 2
Evaluating expressions with multiple variables: fractions \& decimals ..... 6.EE.A. 2
Evaluating expressions with one variable ..... 6.EE.A. 2
Evaluating expressions with variables word problems ..... 6.EE.A. 2
Expression value intuition ..... 6.EE.A. 2
Order of operations ..... 6.EE.A. 2
Parts of algebraic expressions ..... 6.EE.A. 2
Writing basic expressions with variables ..... 6.EE.A. 2
Writing basic expressions word problems ..... 6.EE.A. 2
Writing expressions with variables ..... 6.EE.A. 2
Writing expressions word problems ..... 6.EE.A. 2
Combining like terms ..... 6.EE.A. 3
Combining like terms with distribution ..... 6.EE.A. 3
Distributive property with variables ..... 6.EE.A. 3
Equivalent expressions ..... 6.EE.A. 3
Factor with distributive property (variables) ..... 6.EE.A. 3
Factor with the distributive property ..... 6.EE.A. 3
Testing solutions to inequalities ..... 6.EE.B. 5
Testing solutions to inequalities (basic) ..... 6.EE.B. 5
Identify and solve equations from visual models ..... 6.EE.B. 5 | 6.EE.B. 7
Identify equations from visual models ..... 6.EE.B. 5 | 6.EE.B. 7
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 220-223
Solve equations from visual models ..... 6.EE.B. 5 | 6.EE.B. 7
Testing solutions to equations ..... 6.EE.B.5 | 6.EE.B. 7
Model with one-step equations 6.EE.B.6 | 6.EE.B. 7
Model with one-step equations and solve 6.EE.B.6 | 6.EE.B. 7
Translate one-step equations and solveFind the mistake in one-step equations6.EE.B. 7
One-step addition \& subtraction equations ..... 6.EE.B. 7
One-step addition \& subtraction equations: fractions \& decimals ..... 6.EE.B. 7
One-step multiplication \& division equations ..... 6.EE.B. 7
One-step multiplication \& division equations: fractions \& decimals ..... 6.EE.B. 7
Inequalities word problems ..... 6.EE.B. 7 | 6.EE.B. 8
Inequality from graph ..... 6.EE.B. 8
Plotting inequalities ..... 6.EE.B. 8
Independent versus dependent variables ..... 6.EE.C. 9
Match equations to coordinates on a line ..... 6.EE.C. 9
Relationships between quantities in equations and graphs ..... 6.EE.C. 9
Tables from equations with 2 variables ..... 6.EE.C. 9
RIT Range: 224-227
Combining like terms with negative coefficients ..... 7.EE.A. 1
Combining like terms with negative coefficients \& distribution ..... 7.EE.A. 1
Combining like terms with rational coefficients ..... 7.EE.A. 1
Equivalent expressions: negative numbers \& distribution ..... 7.EE.A. 1
The distributive property with variables ..... 7.EE.A. 1
Interpreting linear expressions ..... 7.EE.A. 2
Rational number word problems ..... 7.EE.B. 3
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 224-227
Find the mistake: two-step equations ..... 7.EE.B. 4
One-step inequalities ..... 7.EE.B. 4
Two-step equations with decimals and fractions ..... 7.EE.B. 4
Two-step equations word problems ..... 7.EE.B. 4
Two-step inequalities ..... 7.EE.B. 4
Two-step inequality word problems ..... 7.EE.B. 4
Two-step equations ..... 7.EE.B. 4 | HSA-REI.B. 3
RIT Range: 228-231
Divide powers ..... 8.EE.A. 1
Multiply \& divide powers (integer exponents) ..... 8.EE.A. 1
Multiply powers ..... 8.EE.A. 1
Negative exponents ..... 8.EE.A. 1
Powers of powers ..... 8.EE.A. 1
Powers of products \& quotients ..... 8.EE.A. 1
Powers of products \& quotients (integer exponents) ..... 8.EE.A. 1
Powers of products \& quotients (structured practice) ..... 8.EE.A. 1
Properties of exponents challenge (integer exponents) ..... 8.EE.A. 1
Cube roots ..... 8.EE.A. 2
Equations with square roots \& cube roots ..... 8.EE.A. 2
Roots of decimals \& fractions ..... 8.EE.A. 2
Square and cube challenge ..... 8.EE.A. 2
Square roots ..... 8.EE.A. 2
Scientific notation ..... 8.EE.A. 3
Approximating with powers of 10 ..... 8.EE.A. $3 \mid 8 . E E . A .4$
Multiplication and division with powers of ten ..... 8.EE.A. $3 \mid 8 . E E . A .4$
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 228-231
Adding \& subtracting in scientific notation ..... 8.EE.A. 4
Multiplying \& dividing in scientific notation ..... 8.EE.A. 4
Scientific notation word problems ..... 8.EE.A. 4
Graphing proportional relationships ..... 8.EE.B. 5
Rates \& proportional relationships ..... 8.EE.B. 5
Equation practice with angle addition ..... 8.EE.C. 7
Equation practice with midpoints ..... 8.EE.C. 7
Equation practice with segment addition ..... 8.EE.C. 7
Equation practice with vertical angles ..... 8.EE.C. 7
Number of solutions to equations ..... 8.EE.C. 7
Number of solutions to equations challenge ..... 8.EE.C. 7
Sums of consecutive integers ..... 8.EE.C. 7
Equations with parentheses 8.EE.C. 7 | HSA-REI.B. 3
Equations with parentheses: decimals \& fractions 8.EE.C. 7 | HSA-REI.B. 3
Equations with variables on both sides 8.EE.C. 7 | HSA-REI.B. 3
Equations with variables on both sides: decimals \& fractions
Age word problems
Systems of equations word problems
Equivalent systems of equations
8.EE.C. 7 | HSA-REI.B. 3
8.EE.C. 8 | HSA-CED.A. 2 | HSA-CED.A. 3| HSA-REI.C. 6
8.EE.C. 8 | HSA-CED.A. 2 | HSA-CED.A. 3| HSA-REI.C. 6
8.EE.C. 8 | HSA-REI.C. 5
Systems of equations with elimination
8.EE.C. 8 | HSA-REI.C. 6
Systems of equations with elimination challenge 8.EE.C. 8 | HSA-REI.C. 6
Systems of equations with substitution
8.EE.C. 8 | HSA-REI.C. 6
Solutions of systems of equationsSystems of equations with graphing
8.EE.C. 8 | HSA-REI.C. 6 | HSA-REI.D. 11
Linear systems of equations capstone
8.EE.C. 8 | HSA-REI.C. $6 \mid$ HSA-SSE.B. 3
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 228-231
Number of solutions to a system of equations algebraically 8.EE.C. 8 | HSA-REI.D. 10 | HSA-REI.D. 11 8.EE.C. 8 | HSA-REI.D. 10 | HSA-REI.D. 11
RIT Range: 232-245
Two-step equations 7.EE.B. 4 | HSA-REI.B. 3
Equations with parentheses 8.EE.C. 7 | HSA-REI.B. 3
Equations with parentheses: decimals \& fractions 8.EE.C. 7 | HSA-REI.B. 3
8.EE.C. 7 | HSA-REI.B. 3
8.EE.C. 7 | HSA-REI.B. 3
8.EE.C. $8 \mid$ HSA-CED.A. $2 \mid$ HSA-CED.A. 3| HSA-REI.C. 6
8.EE.C. 8 | HSA-CED.A. $2 \mid$ HSA-CED.A. 3| HSA-REI.C. 6
8.EE.C. 8 | HSA-REI.C. 5
8.EE.C. 8 | HSA-REI.C. 6
8.EE.C. 8 | HSA-REI.C. 6
8.EE.C. 8 | HSA-REI.C. 6
8.EE.C. 8 | HSA-REI.C. 6 | HSA-REI.D. 11
8.EE.C. 8 | HSA-REI.C. 6 | HSA-REI.D. 11
8.EE.C. 8 | HSA-REI.C. 6 | HSA-SSE.B. 3
8.EE.C. 8 | HSA-REI.D. 10 | HSA-REI.D. 11Number of solutions to a system of equations graphically
Add \& subtract polynomials
HSA-APR.A. 1
Add \& subtract polynomials: find the error ..... HSA-APR.A. 1
Add \& subtract polynomials: two variables (intro) ..... HSA-APR.A. 1
Add polynomials (intro) ..... HSA-APR.A. 1
Multiply binomialsMultiply binomials introHSA-APR.A. 1
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 232-245
Multiply monomials intro ..... HSA-APR.A. 1
Special products of binomials ..... HSA-APR.A. 1
Special products of binomials intro ..... HSA-APR.A. 1
Subtract polynomials (intro) ..... HSA-APR.A. 1
Multiply monomials
HSA-APR.A. 1 | HSA-SSE.A. 1
Divide polynomials with remainders ..... HSA-APR.D. 6
Divide polynomials with remainders: binomial divisors ..... HSA-APR.D. 6
Divide polynomials with remainders: monomial divisors HSA-APR.D. 6
Equations \& inequalities word problems HSA-CED.A. 1
Multiple units word problems HSA-CED.A. 1
Construct exponential models HSA-CED.A. 2
Graphing linear functions word problems ..... HSA-CED.A. 2
Linear models word problems HSA-CED.A. 2Systems of equations word problems capstone
HSA-CED.A. 2 | HSA-CED.A. 3 | HSA-
REI.C. 6
Constraint solutions of systems of inequalities ..... HSA-CED.A. 3
Constraint solutions of two-variable inequalitiesSolutions of inequalities: algebraicHSA-CED.A. 3
Solutions of inequalities: graphical ..... HSA-CED.A. 3
Solutions of systems of inequalities ..... HSA-CED.A. 3
Systems of inequalities word problems ..... HSA-CED.A. 3
Two-variable inequalities word problems ..... HSA-CED.A. 3
Manipulate formulas ..... HSA-CED.A. 4
Compound inequalities ..... HSA-REI.B. 3
Linear equations with unknown coefficients ..... HSA-REI.B. 3
Multi-step linear inequalities ..... HSA-REI.B. 3
Number of solutions of quadratic equations ..... HSA-REI.B. 4
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 232-245
Quadratic formulaQuadratics by taking square rootsHSA-REI.B. 4
Quadratics by taking square roots: strategy HSA-REI.B. 4
Solve equations using structure HSA-REI.B. 4 | HSA-SSE.A. 2 | HSA-
SSE.B. 3
Completing the square
HSA-REI.B. 4 | HSA-SSE.B. 3
Completing the square (intermediate)Completing the square (intro)
HSA-REI.B. 4 | HSA-SSE.B. 3
Quadratic word problems (standard form) HSA-REI.B. 4 | HSA-SSE.B. 3
Quadratics by factoring
HSA-REI.B. 4 | HSA-SSE.B. 3
Quadratics by factoring (intro)
HSA-REI.B. 4 | HSA-SSE.B. 3
Complete solutions to 2-variable equations HSA-REI.D. 10
Solutions to 2-variable equations ..... HSA-REI.D. 10
Interpret equations graphically ..... HSA-REI.D. 11
Graphs of inequalities ..... HSA-REI.D. 12
Systems of inequalities graphs ..... HSA-REI.D. 12
Two-variable inequalities from their graphs HSA-REI.D. 12
Analyzing structure with linear inequalities
Interpret change in exponential models: changing units
HSA-SSE.A. 1 | HSA-SSE.B. 3
HSA-SSE.A. 1 | HSA-SSE.B. 3
Interpret change in exponential models: with manipulation
HSA-SSE.A. 1 | HSA-SSE.B. 3
Difference of squares ..... HSA-SSE.A. 2
Evaluate expressions using structure ..... HSA-SSE.A. 2
Manipulate expressions using structure ..... HSA-SSE.A. 2
Difference of squares introFactor monomialsPerfect squares
HSA-SSE.A. 2 | HSA-SSE.B. 3
Convert linear equations to standard formHSA-SSE.B. 3
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 232-245
Factor quadratics by grouping ..... HSA-SSE.B. 3
Factoring quadratics intro ..... HSA-SSE.B. 3
Features of quadratic functions ..... HSA-SSE.B. 3
Features of quadratic functions: strategy ..... HSA-SSE.B. 3
Interpret change in exponential models ..... HSA-SSE.B. 3
Interpret time in exponential models ..... HSA-SSE.B. 3
Rewrite exponential expressions ..... HSA-SSE.B. 3
Slope from equation ..... HSA-SSE.B. 3
RIT Range: 246-255
Add \& subtract polynomials: two variables ..... HSA-APR.A. 1
Multiply binomials by polynomials ..... HSA-APR.A. 1
Multiply monomials by polynomials ..... HSA-APR.A. 1
Multiply monomials by polynomials challenge HSA-APR.A. 1
Multiply monomials by polynomials: area model HSA-APR.A. 1
Multiply monomials HSA-APR.A. 1 | HSA-SSE.A. 1
Use the Polynomial Remainder Theorem ..... HSA-APR.B. 2
Positive \& negative intervals of polynomials
Find zeros of polynomials
Zeros of polynomials \& their graphs
Prove polynomial identities
HSA-APR.B. 3 | HSA-SSE.A. 2 | HSA-SSE.B. 3
HSA-APR.B. 3 | HSA-SSE.A. 2 | HSA-SSE.B. 3
HSA-APR.C. 4
Simplify rational expressions (advanced) ..... HSA-APR.D. 6
Simplify rational expressions: common binomial factors ..... HSA-APR.D. 6
Simplify rational expressions: common monomial factors ..... HSA-APR.D. 6
Equations with one rational expression ..... HSA-REI.A. 2
Equations with one rational expression (advanced) ..... HSA-REI.A. 2
Operations and Algebraic Thinking
Expressions and Equations Standards Alignment
RIT Range: 246-255
Equations with two rational expressions ..... HSA-REI.A. 2
Extraneous solutions of radical equations ..... HSA-REI.A. 2
Solve square-root equations ..... HSA-REI.A. 2
Solve square-root equations (basic) ..... HSA-REI.A. 2
Solve quadratic equations: complex solutions HSA-REI.B. 4 | HSN-CN.C. 7
Solve equations graphically
HSA-REI.D. 11
Factor polynomials: common factor ..... SSE.B. 3
Factoring polynomials challenge ..... HSA-SSE.A. 2
Factor polynomials: quadratic methods HSA-SSE.A. 2 | HSA-SSE.B. 3
Factor polynomials: quadratic methods (challenge)
HSA-SSE.A. 2 | HSA-SSE.B. 3
Factor polynomials: special product forms
HSA-SSE.A. 2 | HSA-SSE.B. 3
Equivalent forms of exponential expressions ..... HSA-SSE.B. 3
Finite geometric series ..... HSA-SSE.B. 4
Finite geometric series in sigma notation ..... HSA-SSE.B. 4
Finite geometric series word problems ..... HSA-SSE.B. 4
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: 192-202
Math patterns 1 ..... 3.OA.D. 9
Patterns with even and odd ..... 3.OA.D. 9
RIT Range: 203-212
Math patterns 2 ..... 4.OA.C. 5
RIT Range: 213-219
Coordinate plane word problems (quadrant 1 - challenging) ..... 5.G.A. 2
Coordinate plane word problems (quadrant 1) ..... 5.G.A. 2
Graph points ..... 5.G.A. 2
Identify coordinates ..... 5.G.A. 2
Identify points ..... 5.G.A. 2
Graphs of rules that relate 2 variables ..... 5.OA.B. 3
Identify points on a line ..... 5.OA.B. 3
Relationships between 2 patterns ..... 5.OA.B. 3
Tables from rules that relate 2 variables ..... 5.OA.B. 3
Write rules that relate 2 variables ..... 5.OA.B. 3
RIT Range: 228-231
Complete solutions to 2 -variable equations ..... 8.F.A. 1
Linear equations in any form 8.F.A. 1 | 8.F.A. 3 | 8.F.B. 4 | HSF-LE.A. 2
Slope-intercept equation from graphSlope-intercept from two points
8.F.A. 1 | 8.F.A. 3 | 8.F.B. 4 | HSF-LE.A. 2
Graph from slope-intercept form
8.F.A. 1 | 8.F.A. $3 \mid$ HSF-IF.C. 7
Function rules from equations 8.F.A. 1 | HSF-IF.A. 1
Recognize functions from graphs 8.F.A. 1 | HSF-IF.A. 1
Recognize functions from tables 8.F.A. 1 | HSF-IF.A. 1
Evaluate function expressions
8.F.A. 1 | HSF-IF.A. 1 | HSF-IF.A. 2
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: 228-231
Function inputs \& outputs: equationDomain and range from graph
8.F.A. 1 | HSF-IF.A. 1 | HSF-IF.B. 5
Evaluate functions
8.F.A. 1 | HSF-IF.A. 2
Function notation word problems 8.F.A. 1 | HSF-IF.A. 2
Determine the domain of functions 8.F.A. 1 | HSF-IF.B. 5
Function domain word problems 8.F.A. 1 | HSF-IF.B. 5
Graph from linear standard form 8.F.A. 1 | HSF-IF.C. 7
Intercepts from a graph 8.F.A. 1 | HSF-IF.C. 7
Intercepts from a table 8.F.A. 1 | HSF-IF.C. 7
Compare linear functions 8.F.A. 2 | HSF-IF.C. 9
Linear \& nonlinear functions 8.F.A. 3
Intercepts from an equation 8.F.A. 3 | HSF-IF.C. 7
Ordered pair solutions to linear equations ..... 8.F.B. 4
Slope from two points 8.F.B. 4 | HSF-IF.C. 7
Slope from equation
8.F.B. 4 | HSF-IF.C. 7 | HSF-IF.C. 8
Slope-intercept intro
Slope from graph
8.F.B. 4 | HSF-IF.C. 7 | HSF-LE.A. 2
8.F.B. 4 | HSF-LE.A. 2
Interpreting graphs of functions ..... 8.F.B. 5
Increasing and decreasing intervalsRelative maxima and minima
8.F.B. $5 \mid$ HSF-IF.C. 7
RIT Range: 232-245
Linear equations in any form 8.F.A. 1 | 8.F.A. 3 | 8.F.B. 4 | HSF-LE.A. 2
Slope-intercept equation from graph ..... 8.F.A. 1 | 8.F.A. 3 | 8.F.B. $4 \mid$ HSF-LE.A. 2
Slope-intercept from two points
8.F.A. 1 | 8.F.A. 3 | 8.F.B. $4 \mid$ HSF-LE.A. 2
Graph from slope-intercept form
8.F.A. 1 | 8.F.A. 3 | HSF-IF.C. 7
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: 232-245
Function rules from equations
Recognize functions from graphsRecognize functions from tables
Evaluate function expressions
8.F.A. 1 | HSF-IF.A. 1
8.F.A. 1 | HSF-IF.A. 1 | HSF-IF.A. 2
Function inputs \& outputs: equation
8.F.A. 1 | HSF-IF.A. 1 | HSF-IF.A. 2
Domain and range from graph
Evaluate functions
Function notation word problems
Determine the domain of functions
Function domain word problems
8.F.A. 1 | HSF-IF.A. 1 | HSF-IF.B. 5
8.F.A. 1 | HSF-IF.A. 2
8.F.A. 1 | HSF-IF.A. 2
8.F.A. 1 | HSF-IF.B. 5
8.F.A. 1 | HSF-IF.B. 5
Graph from linear standard form
8.F.A. 1 | HSF-IF.C. 7
Intercepts from a graph
8.F.A. 1 | HSF-IF.C. 7
8.F.A. 1 | HSF-IF.C. 7
Intercepts from a table
Compare linear functions
8.F.A. 2 | HSF-IF.C. 9
Intercepts from an equation
8.F.A. 3 | HSF-IF.C. 7
Slope from two points
8.F.B. 4 | HSF-IF.C. 7
Slope from equation 8.F.B. 4 | HSF-IF.C. 7 | HSF-IF.C. 8
Slope-intercept intro
8.F.B. 4 | HSF-IF.C. 7 | HSF-LE.A. 2
Slope from graph
Increasing and decreasing intervals
Sequences word problems
Linear models word problems
Construct exponential models
Writing linear functions word problems
8.F.B. 4 | HSF-LE.A. 2
8.F.B. 5 | HSF-IF.C. 7
HSF-BF.A. 1 | HSF-BF.A. 2 | HSF-LE.A. 1 |HSF-BF.A. 1 | HSF-IF.B. 4 | HSF-LE.A. 2 |HSF-LE.B. 5
HSF-BF.A. 1 | HSF-LE.A. 2
Converting recursive \& explicit forms of arithmetic sequences HSF-BF.A. 2
HSF-BF.A. 1 | HSF-LE.A. 2
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: 232-245
Converting recursive \& explicit forms of geometric sequences
Explicit formulas for arithmetic sequences
HSF-BF.A. 2
HSF-BF.A. 2 | HSF-LE.A. 2
Explicit formulas for geometric sequences HSF-BF.A. 2 | HSF-LE.A. 2
HSF-BF.A. 2 | HSF-LE.A. 2
HSF-BF.A. 2 | HSF-LE.A. 2
HSF-BF.B. 3 | HSF-IF.C. 7
Graphs of exponential functions
HSF-IF.A. 1
Domain of advanced functions
HSF-IF.A. 1 Range of quadratic functions
HSF-IF.A. 1 | HSF-IF.A. 2
Evaluate functions from their graphHSF-IF.A. 1 | HSF-IF.A. 2
Function inputs \& outputs: graph
Evaluate sequences in recursive form
HSF-IF.A. 2
Use arithmetic sequence formulas
HSF-IF.A. 2
Use geometric sequence formulas HSF-IF.A. 2
Linear equations word problems: graphs ..... HSF-IF.B. 4
Linear equations word problems: tables HSF-IF.B. 4
Quadratic word problems (standard form)
HSF-IF.B. 4 | HSF-IF.C. 8
Comparing linear functions word problem
Graph parabolas in all forms
HSF-IF.B. 4 | HSF-IF.C. 9 | HSF-LE.B. 5
Graph quadratics in factored formHSF-IF.C. 7
Graph quadratics in standard form ..... HSF-IF.C. 7
Graph quadratics in vertex form ..... HSF-IF.C. 7
Graphing exponential growth \& decay ..... HSF-IF.C. 7
Graphing linear functions word problems ..... HSF-IF.C. 7
Positive and negative intervals ..... HSF-IF.C. 7
Horizontal \& vertical lines HSF-IF.C. 7 | HSF-LE.A. 2
Completing the squareHSF-IF.C. 8
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: ..... 232-245
Completing the square (intermediate) HSF-IF.C. 8
Completing the square (intro) ..... HSF-IF.C. 8
Convert linear equations to standard form ..... HSF-IF.C. 8
Difference of squares ..... HSF-IF.C. 8
Difference of squares intro ..... HSF-IF.C. 8
Factor monomials ..... HSF-IF.C. 8
Factor quadratics by grouping ..... HSF-IF.C. 8
Factoring quadratics intro ..... HSF-IF.C. 8
Features of quadratic functions ..... HSF-IF.C. 8
Features of quadratic functions: strategy ..... HSF-IF.C. 8
Perfect squares ..... HSF-IF.C. 8
Quadratics by factoring ..... HSF-IF.C. 8
Quadratics by factoring (intro) ..... HSF-IF.C. 8
Rewrite exponential expressions ..... HSF-IF.C. 8
Solve equations using structure ..... HSF-IF.C. 8
Compare features of functions HSF-IF.C. 8 | HSF-IF.C. 9
Interpret change in exponential models HSF-IF.C. 8 | HSF-LE.B. 5
Interpret change in exponential models: changing units HSF-IF.C. 8 | HSF-LE.B. 5
Interpret change in exponential models: with manipulation HSF-IF.C. 8 | HSF-LE.B. 5
Interpret time in exponential models ..... HSF-IF.C. 8 | HSF-LE.B. 5
Compare quadratic functions ..... HSF-IF.C. 9
Exponential vs. linear. models ..... HSF-LE.A. 1
Linear vs. exponential growth: from data ..... HSF-LE.A. 1
Exponential functions from tables \& graphs ..... HSF-LE.A. 2
Point-slope form ..... HSF-LE.A. 2
Exponential vs. linear growth over time ..... HSF-LE.A. 3
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: 232-245
Linear equations word problems ..... HSF-LE.B. 5
RIT Range: 246-255
Relative maxima and minima ..... 8.F.B. 5 | HSF-IF.C. 7
Model with function combination ..... HSF-BF.A. 1
Modeling with sinusoidal functions HSF-BF.A. 1 | HSF-TF.B. 5
Even \& odd functionsEven \& odd polynomials
HSF-BF.B. 3
Shift functions HSF-BF.B. 3
Transforming functions HSF-BF.B. 3
Graph sinusoidal functions ..... HSF-BF.B. 3 | HSF-IF.C. 7
Graphs of logarithmic functions HSF-BF.B. 3 | HSF-IF.C. 7
Radical functions \& their graphs HSF-BF.B. 3 | HSF-IF.C. 7
Construct sinusoidal functions HSF-BF.B. 3 | HSF-TF.B. 5
Domain of advanced piecewise functions ..... HSF-IF.A. 1
Evaluate piecewise functionsEvaluate step functionsHSF-IF.A. 2 | HSF-IF.C. 7
End behavior of algebraic models ..... HSF-IF.B. 4
Graph interpretation word problems ..... HSF-IF.B. 4
Periodicity of algebraic models ..... HSF-IF.B. 4
Average rate of change ..... HSF-IF.B. 6
Average rate of change word problems ..... HSF-IF.B. 6
Average rate of change: graphs \& tables ..... HSF-IF.B. 6
Absolute maxima and minima ..... HSF-IF.C. 7
Amplitude of sinusoidal functions from equation ..... HSF-IF.C. 7
Amplitude of sinusoidal functions from graph ..... HSF-IF.C. 7
Operations and Algebraic Thinking
Use Functions to Model Relationships Standards Alignment
RIT Range: 246-255
Analyze vertical asymptotes of rational functions ..... HSF-IF.C. 7
End behavior of polynomials ..... HSF-IF.C. 7
End behavior of rational functions ..... HSF-IF.C. 7
Graph absolute value functions HSF-IF.C. 7
Graphs of nonlinear piecewise functions ..... HSF-IF.C. 7
Graphs of rational functions ..... HSF-IF.C. 7
Midline of sinusoidal functions from equation ..... HSF-IF.C. 7
Midline of sinusoidal functions from graph ..... HSF-IF.C. 7
Period of sinusoidal functions from equation ..... HSF-IF.C. 7
Period of sinusoidal functions from graph HSF-IF.C. 7
Piecewise functions graphs ..... HSF-IF.C. 7
Positive \& negative intervals of polynomials ..... HSF-IF.C. 7
Rational function points of discontinuity HSF-IF.C. 7
Zeros of polynomials \& their graphs ..... HSF-IF.C. 7 | HSF-IF.C. 8
Equivalent forms of exponential expressions ..... HSF-IF.C. 8
Factor polynomials: common factor ..... HSF-IF.C. 8
Factor polynomials: quadratic methods ..... HSF-IF.C. 8
Factor polynomials: quadratic methods (challenge) ..... HSF-IF.C. 8
Factor polynomials: special product forms ..... HSF-IF.C. 8
Find zeros of polynomials ..... HSF-IF.C. 8
Exponential model word problems ..... HSF-LE.A. 4
Solve exponential equations using logarithms: base-10 and base-e ..... HSF-LE.A. 4
Solve exponential equations using logarithms: base-2 and other ..... HSF-LE.A. 4bases
Modeling with sinusoidal functions: phase shiftHSF-TF.B. 5
Use the Pythagorean identity ..... HSF-TF.C. 8

## Operations and Algebraic Thinking

Use Functions to Model Relationships Standards Alignment

## RIT Range: >256

Model with composite functions HSF-BF.A. 1
Evaluate logarithms: change of base rule HSF-LE.A. 4
The Real and Complex Number Systems
Ratios and Proportional Relationships Standards Alignment
RIT Range: 203-212
Convert to smaller units (c, pt, qt, \& gal) ..... 4.MD.A. 1
Convert to smaller units ( g and kg ) ..... 4.MD.A. 1
Convert to smaller units (in, $\mathrm{ft}, \mathrm{yd}, \& \mathrm{mi}$ ) ..... 4.MD.A. 1
Convert to smaller units ( mL and L ) ..... 4.MD.A. 1
Convert to smaller units ( $\mathrm{mm}, \mathrm{cm}, \mathrm{m}, \& \mathrm{~km}$ ) 4.MD.A. 1
Convert to smaller units (oz and lb) ..... 4.MD.A. 1
Convert to smaller units (sec, min, \& hr) ..... 4.MD.A. 1
Convert money word problems ..... 4.MD.A. 2
Metric conversions word problems ..... 4.MD.A. 2
US customary conversion word problems ..... 4.MD.A. 2
RIT Range: 213-219
Convert units (metrics) ..... 5.MD.A. 1
Convert units (US customary) ..... 5.MD.A. 1
Convert units word problems (metric) ..... 5.MD.A. 1
Convert units word problems (US customary) ..... 5.MD.A. 1
RIT Range: 220-223
Basic ratios ..... 6.RP.A. 1
Equivalent ratiosRatios with double number lines6.RP.A. 1 | 6.RP.A. 3
Ratios with tape diagramsUnit rates6.RP.A. 2
Comparing rates ..... 6.RP.A. 2 | 6.RP.A. 3
Converting decimals to percents ..... 6.RP.A. 3
Converting percents \& fractions ..... 6.RP.A. 3
Converting percents to decimals ..... 6.RP.A. 3
The Real and Complex Number Systems
Ratios and Proportional Relationships Standards Alignment
RIT Range: ..... 220-223
Equivalent ratio word problems ..... 6.RP.A. 3
Finding percents ..... 6.RP.A. 3
Intro to percents ..... 6.RP.A. 3
Part-part-whole ratios ..... 6.RP.A. 3
Percent word problems ..... 6.RP.A. 3
Percents from fraction models ..... 6.RP.A. 3
Rate problems ..... 6.RP.A. 3
Ratio tables ..... 6.RP.A. 3
Ratios and units of measurement ..... 6.RP.A. 3
Ratios on coordinate plane ..... 6.RP.A. 3
Relate fractions, decimals, and percents ..... 6.RP.A. 3
Understand equivalent ratios ..... 6.RP.A. 3
Proportion word problems ..... 6.RP.A. 3 | 7.RP.A. 3
RIT Range: 224-227
Proportion word problems ..... 6.RP.A. 3 | 7.RP.A. 3
Rates with fractions ..... 7.RP.A. 1
Compare constants of proportionality ..... 7.RP.A. 2
Constant of proportionality from equations ..... 7.RP.A. 2
Constant of proportionality from graphs ..... 7.RP.A. 2
Constant of proportionality from tables ..... 7.RP.A. 2
Interpret constants of proportionality ..... 7.RP.A. 2
Interpreting graphs of proportional relationships ..... 7.RP.A. 2
Proportional relationships ..... 7.RP.A. 2
Proportional relationships: graphs ..... 7.RP.A. 2
Solving proportions ..... 7.RP.A. 2
The Real and Complex Number Systems
Ratios and Proportional Relationships Standards Alignment
RIT Range: 224-227
Writing proportional equations ..... 7.RP.A. 2
Writing proportions ..... 7.RP.A. 2
Discount, tax, markup, and commission word problems ..... 7.RP.A. 3
Equivalent representations of percent problems ..... 7.RP.A. 3
Percent problems ..... 7.RP.A. 3
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: <160
Count tensNumbers to 100K.CC.A. 1
Add within 10 ..... K.OA.A. 1
Subtract within 10 ..... K.OA.A. 1
Addition word problems within 10 ..... K.OA.A. 2
Subtraction word problems within 10 ..... K.OA.A. 2
RIT Range: 161-178
Numbers to 120 ..... 1.NBT.A. 1
Add 1s or 10s (no regrouping) 1.NBT.C. 4
Add 2-digit numbers (no regrouping) ..... 1.NBT.C. 4
Break apart 2-digit addition problems ..... 1.NBT.C. 4
Regroup when adding 1-digit numbers ..... 1.NBT.C. 4
Add 1 or 10Addition and subtraction word problems 1Addition and subtraction word problems 21.OA.A. 1
Word problems with "more" and "fewer" ..... 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
Add 3 numbers ..... 1.OA.A. 2
Add within 20 ..... 1.OA.C. 6
RIT Range: 179-191
Count money (U.S.) ..... 2.MD.C. 8 | 2.NBT.A. 2
Skip-count by 10s ..... 2.NBT.A. 2
Skip-count by 5s ..... 2.NBT.A. 2
Skip-counting by 100 s ..... 2.NBT.A. 2
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 179-191
Subtract 1-digit numbers with regrouping ..... 2.NBT.A. 4
Add 2-digit numbers by making tens ..... 2.NBT.B. 5
Add 2-digit numbers by making tens 2 2.NBT.B. 5
Add within 100 ..... 2.NBT.B. 5
Subtract 1 or 10 ..... 2.NBT.B. 5
Subtract 2-digit numbers (no regrouping) ..... 2.NBT.B. 5
Subtract within 100 ..... 2.NBT.B. 5
Subtract within 20 ..... 2.NBT.B. 5
Subtracting 1s or 10s (no regrouping) ..... 2.NBT.B. 5
Add 10s and 100s (no regrouping) ..... 2.NBT.B. 7
Add 2- and 3-digit numbers (no regrouping) ..... 2.NBT.B. 7
Add and subtract on a number line ..... 2.NBT.B. 7
Add and subtract using a number line ..... 2.NBT.B. 7
Select strategies for adding within 100 ..... 2.NBT.B. 7
Subtract 10s and 100s (no regrouping) ..... 2.NBT.B. 7
Subtract 2-and 3-digit numbers (no regrouping) ..... 2.NBT.B. 7
Add using groups of 10 and 100Break apart 3-digit addition problemsEstimate to add and subtract multi-digit whole numbers2.NBT.B. 7 | 3.NBT.A. 2
Add and subtract within 100 word problems 1 ..... 2.OA.A. 1
Add and subtract within 100 word problems 2 ..... 2.OA.A. 1
Add and subtract within 100 word problems 3 ..... 2.OA.A. 1
Challenging add and subtract word problems (within 100) ..... 2.OA.A. 1
Find the missing number (add and subtract within 100) ..... 2.OA.A. 1
Length word problems ..... 2.OA.A. 1
Repeated addition ..... 2.OA.C. 4
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 192-202
Add using groups of 10 and 100Break apart 3-digit addition problems2.NBT.B. 7 | 3.NBT.A. 2
Estimate to add and subtract multi-digit whole numbersRound to nearest 10 or 100
3.NBT.A. 1
Round to nearest 10 or 100 on the number line ..... 3.NBT.A. 1
Rounding challenge ..... 3.NBT.A. 1
Add within 1000 ..... 3.NBT.A. 2
Subtract within 1000 ..... 3.NBT.A. 2
Multiply by tens ..... 3.NBT.A. 3
Multiply by tens word problems ..... 3.NBT.A. 3
Meaning of multiplication ..... 3.OA.A. 1
Divide with visuals ..... 3.OA.A. 2
Meaning of division ..... 3.OA.A. 2
Multiplication and division word problems (within 100) ..... 3.OA.A. 3
Relate division to multiplication word problems ..... 3.OA.A. 3
Associative property of multiplication ..... 3.OA.B. 5
Relate division to multiplication ..... 3.OA.B. 6
Basic division ..... 3.OA.C. 7
Basic multiplication ..... 3.OA.C. 7
Divide by 1 ..... 3.OA.C. 7
Divide by 10 ..... 3.OA.C. 7
Divide by 2 ..... 3.OA.C. 7
Divide by 3 ..... 3.0A.C. 7
Divide by 4 ..... 3.OA.C. 7
Divide by 5 ..... 3.OA.C. 7
Divide by 6 ..... 3.OA.C. 7
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 192-202
Divide by 7 ..... 3.OA.C. 7
Divide by 8 ..... 3.OA.C. 7
Divide by 9 ..... 3.OA.C. 7
Find missing divisors and dividends (1-digit division) ..... 3.OA.C. 7
Multiply by 0 or 1 ..... 3.OA.C. 7
Multiply by 2 ..... 3.OA.C. 7
Multiply by 3 ..... 3.OA.C. 7
Multiply by 4 ..... 3.OA.C. 7
Multiply by 5 ..... 3.OA.C. 7
Multiply by 6 ..... 3.OA.C. 7
Multiply by 7 ..... 3.OA.C. 7
Multiply by 8 ..... 3.OA.C. 7
Multiply by 9 ..... 3.OA.C. 7
Whole numbers on the number line ..... 3.OA.C. 7
2-step word problems ..... 3.OA.D. 8
RIT Range: 203-212
Telling time word problems ..... 4.MD.A. 2
Round whole numbers ..... 4.NBT.A. 3
Round whole numbers challenge ..... 4.NBT.A. 3
Round whole numbers word problems ..... 4.NBT.A. 3
Multi-digit addition ..... 4.NBT.B. 4
Multi-digit subtraction ..... 4.NBT.B. 4
Multiply 1-digit numbers by 10, 100, and 1000 ..... 4.NBT.B. 5
Multiply 1-digit numbers by a multiple of 10, 100, and 1000 ..... 4.NBT.B. 5
Multiply 2 -, 3 -, and 4 -digits by 1 -digit with area models ..... 4.NBT.B. 5
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 203-212
Multiply 2-digit numbers ..... 4.NBT.B. 5
Multiply 2-digit numbers with area models ..... 4.NBT.B. 5
Multiply using place value ..... 4.NBT.B. 5
Multiply with regrouping ..... 4.NBT.B. 5
Multiply without regrouping ..... 4.NBT.B. 5
Multiplying 10s ..... 4.NBT.B. 5
Cancel zeros when dividing ..... 4.NBT.B. 6
Divide by 1-digit numbers (no remainders) ..... 4.NBT.B. 6
Divide by 1-digit numbers (visual models) ..... 4.NBT.B. 6
Divide using place value ..... 4.NBT.B. 6
Divide with remainders ..... 4.NBT.B. 6
Divide with remainders (basic) ..... 4.NBT.B. 6
Intro to remainders ..... 4.NBT.B. 6
Quotients that are multiples of 10 ..... 4.NBT.B. 6
Zeros in the dividend (no remainders) ..... 4.NBT.B. 6
Zeros in the quotient (no remainders) ..... 4.NBT.B. 6
Add and subtract fractions: word problems ..... 4.NF.B. 3
Add and subtract mixed numbers (no regrouping) ..... 4.NF.B. 3
Add and subtract mixed numbers (with regrouping) ..... 4.NF.B. 3
Add and subtract mixed numbers word problems (like denominators) ..... 4.NF.B. 3
Add fractions with common denominators ..... 4.NF.B. 3
Decompose fractions ..... 4.NF.B. 3
Subtract fractions with common denominators ..... 4.NF.B. 3
Equivalent unit fraction and whole number multiplication expressions ..... 4.NF.B. 4
Multiply fractions and whole numbers intuition ..... 4.NF.B. 4
Multiply unit fractions and whole numbers ..... 4.NF.B. 4
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 203-212
Multiply fractions and whole numbers 4.NF.B. 4 | 5.NF.B. 4
Interpret multiplying fraction and whole number word problems ..... 4.NF.B. 4 | 5.NF.B. 6
Multiply fractions and whole numbers word problems 4.NF.B. 4 | 5.NF.B. 6
Add fractions (denominators 10 \& 100) ..... 4.NF.C. 5
Equivalent expressions with common denominators (denominators ..... 4.NF.C. 5
$10 \& 100)$
Equivalent fractions (denominators 10 \& 100) ..... 4.NF.C. 5
Equivalent fractions with fraction models (denominators 10 \& 100) ..... 4.NF.C. 5
Decimals in words ..... 4.NF.C. 6
Decimals on the number line: hundredths 0-0.1 ..... 4.NF.C. 6
Decimals on the number line: tenths 0-1 ..... 4.NF.C. 6
Place value for decimals greater than 1 ..... 4.NF.C. 6
Rewrite decimals as fractions ..... 4.NF.C. 6
Rewrite fractions as decimals (denominators of $10 \& 100$ ) ..... 4.NF.C. 6
Write decimal numbers shown in grids ..... 4.NF.C. 6
Write number as a fraction and decimal ..... 4.NF.C. 6
Compare with multiplication ..... 4.OA.A. 1
Compare with multiplication word problems ..... 4.OA.A. 1
Multiplication and division word problems ..... 4.OA.A. 2
Multi-step estimation word problems ..... 4.OA.A. 3
Multi-step word problems with whole numbers ..... 4.OA.A. 3
Factor pairs ..... 4.OA.B. 4
Identify composite numbers ..... 4.OA.B. 4
Identify factors and multiples ..... 4.OA.B. 4
Identify prime numbers ..... 4.OA.B. 4
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 213-219
Multiply fractions and whole numbers ..... 4.NF.B. 4 | 5.NF.B. 4
Interpret multiplying fraction and whole number word problems ..... 4.NF.B. 4 | 5.NF.B. 6
Multiply fractions and whole numbers word problems 4.NF.B. 4 | 5.NF.B. 6
Multiply and divide by powers of 10 ..... 5.NBT.A. 2
Multiply and divide decimals by 10 ..... 5.NBT.A. 2
Multiply and divide decimals by 10, 100, and 1000 ..... 5.NBT.A. 2
Multiply and divide whole numbers by 10, 100, and 1000 ..... 5.NBT.A. 2
Round decimals ..... 5.NBT.A. 4
Round decimals challenge ..... 5.NBT.A. 4
Round decimals using a number line ..... 5.NBT.A. 4
Round decimals word problems ..... 5.NBT.A. 4
Estimate multi-digit multiplication problems ..... 5.NBT.B. 5
Multi-digit multiplication ..... 5.NBT.B. 5
Multiply by taking out factors of 10 ..... 5.NBT.B. 5
Basic multi-digit division ..... 5.NBT.B. 6
Divide by taking out factors of 10 ..... 5.NBT.B. 6
Estimate multi-digit division problems ..... 5.NBT.B. 6
Add decimals like $0.7+0.5$ ..... 5.NBT.B. 7
Add decimals like 0.76+0.21 ..... 5.NBT.B. 7
Add decimals like 4+5.7 ..... 5.NBT.B. 7
Add decimals like 40.1+7.6 ..... 5.NBT.B. 7
Add decimals like 47.75+11.98 ..... 5.NBT.B. 7
Add decimals like 5.53+6.1 ..... 5.NBT.B. 7
Add decimals visually ..... 5.NBT.B. 7
Divide decimals and whole numbers by 0.1 or 0.01 ..... 5.NBT.B. 7
Divide decimals like $0.72 \div 0.08$ ..... 5.NBT.B. 7
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 213-219
Divide decimals like $1.32 \div 0.12$ ..... 5.NBT.B. 7
Divide decimals like $1.86 \div 2$ ..... 5.NBT.B. 7
Divide decimals like $16.8 \div 40$ by factoring out a 10 ..... 5.NBT.B. 7
Divide decimals visually ..... 5.NBT.B. 7
Divide whole numbers like $63 \div 12$ to get a decimal ..... 5.NBT.B. 7
Divide whole numbers like $7 \div 5$ to get a decimal ..... 5.NBT.B. 7
Divide whole numbers like $80 \div 200$ to get a decimal ..... 5.NBT.B. 7
Dividing decimals 1 ..... 5.NBT.B. 7
Dividing decimals 2 ..... 5.NBT.B. 7
Estimating with adding decimals ..... 5.NBT.B. 7
Estimating with dividing decimals ..... 5.NBT.B. 7
Estimating with multiplying decimals ..... 5.NBT.B. 7
Estimating with subtracting decimals ..... 5.NBT.B. 7
Multiply decimals like $0.56 \times 4$ ..... 5.NBT.B. 7
Multiply decimals like $0.6 \times 0.4$ ..... 5.NBT.B. 7
Multiply decimals like $1.7 \times 0.12$ ..... 5.NBT.B. 7
Multiply decimals visually ..... 5.NBT.B. 7
Subtract decimals like 0.6-0.43 ..... 5.NBT.B. 7
Subtract decimals like 0.75-0.56 ..... 5.NBT.B. 7
Subtract decimals like 0.9-0.7 ..... 5.NBT.B. 7
Subtract decimals like 1.6-0.3 ..... 5.NBT.B. 7
Subtract decimals like 15-7.45 ..... 5.NBT.B. 7
Subtract decimals like 56.8-17.9 ..... 5.NBT.B. 7
Subtract decimals like 67.89-6 ..... 5.NBT.B. 7
Subtract decimals like 78.4-3 ..... 5.NBT.B. 7
Subtract decimals visually ..... 5.NBT.B. 7
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 213-219
Adding decimals: hundredths ..... 5.NBT.B. 7 | 6.NS.B. 3
Adding decimals: tenths ..... 5.NBT.B. 7 | 6.NS.B. 3
Multiplying decimals like $4 \times 0.6$ (standard algorithm)Subtracting decimals: hundredthsSubtracting decimals: tenths
5.NF.A. 1Add and subtract fractions challenge
Add and subtract mixed numbers with unlike denominators 1 ..... 5.NF.A. 1
Add and subtract mixed numbers with unlike denominators 2 ..... 5.NF.A. 1
Add fractions with unlike denominators ..... 5.NF.A. 1
Equivalent expressions with common denominators ..... 5.NF.A. 1
Subtracting fractions with unlike denominators ..... 5.NF.A. 1
Visually add and subtract fractions ..... 5.NF.A. 1
Add and subtract fractions word problems ..... 5.NF.A. 2
Fractions as division word problems ..... 5.NF.B. 3
Area of rectangles with fraction side lengths ..... 5.NF.B. 4
Multiply fractions and whole numbers visually ..... 5.NF.B. 4
Multiply mixed numbers ..... 5.NF.B. 4
Multiplying fractions ..... 5.NF.B. 4
Multiplying fractions with visuals ..... 5.NF.B. 4
Multiply fractions word problems ..... 5.NF.B. 6
Dividing unit fractions by whole numbers ..... 5.NF.B. 7
Dividing unit fractions by whole numbers visually ..... 5.NF.B. 7
Dividing whole numbers by unit fractions ..... 5.NF.B. 7
Dividing whole numbers by unit fractions visually ..... 5.NF.B. 7
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 220-223
Adding decimals: hundredths 5.NBT.B. 7 | 6.NS.B. 3
Adding decimals: tenths ..... 5.NBT.B. 7 | 6.NS.B. 3
Multiplying decimals like $4 \times 0.6$ (standard algorithm) ..... 5.NBT.B. 7 | 6.NS.B. 3
Subtracting decimals: hundredthsSubtracting decimals: tenthsDivide mixed numbers6.NS.A. 1
Divide whole numbers by fractions ..... 6.NS.A. 1
Dividing fractions ..... 6.NS.A. 1
Dividing fractions word problems ..... 6.NS.A. 1
Understanding dividing fractions by fractions ..... 6.NS.A. 1
Division by 2-digits ..... 6.NS.B. 2
Multi-digit division ..... 6.NS.B. 2
Adding \& subtracting decimals word problems ..... 6.NS.B. 3
Adding decimals: thousandths ..... 6.NS.B. 3
Dividing decimals: hundredths ..... 6.NS.B. 3
Dividing decimals: thousandths ..... 6.NS.B. 3
Dividing whole numbers like $56 \div 35$ to get a decimal ..... 6.NS.B. 3
Multiplying decimals like $0.847 \times 3.54$ (standard algorithm) ..... 6.NS.B. 3
Multiplying decimals like $2.45 \times 3.6$ (standard algorithm) ..... 6.NS.B. 3
Subtracting decimals: thousandths ..... 6.NS.B. 3
GCF \& LCM word problems ..... 6.NS.B. 4
Greatest common factor ..... 6.NS.B. 4
Least common multiple ..... 6.NS.B. 4
RIT Range: 224-227
Absolute value to find distance ..... 7.NS.A. 1
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 224-227
Absolute value to find distance challenge ..... 7.NS.A. 1
Adding \& subtracting negative fractions ..... 7.NS.A. 1
Adding \& subtracting negative numbers ..... 7.NS.A. 1
Adding \& subtracting rational numbers ..... 7.NS.A. 1
Adding negative numbers ..... 7.NS.A. 1
Adding negative numbers on the number line ..... 7.NS.A. 1
Addition \& subtraction: find the missing value ..... 7.NS.A. 1
Equivalent expressions with negative numbers ..... 7.NS.A. 1
Interpret negative number addition and subtraction expressions ..... 7.NS.A. 1
Number equations \& number lines ..... 7.NS.A. 1
Ordering negative number expressions ..... 7.NS.A. 1
Signs of sums ..... 7.NS.A. 1
Substitution with negative numbers ..... 7.NS.A. 1
Subtracting negative numbers ..... 7.NS.A. 1
Understand subtraction as adding the opposite ..... 7.NS.A. 1
Exponents with integer bases ..... 7.NS.A. 1 | 7.NS.A. 2
Order of operations with negative numbers ..... 7.NS.A. 1 | 7.NS.A. 2
Interpreting negative number statements ..... 7.NS.A. 1 | 7.NS.A. 3
Negative number addition and subtraction: word problems 7.NS.A. 1 | 7.NS.A. 3
Comparing rational numbers ..... 7.NS.A. 2
Converting fractions to decimals ..... 7.NS.A. 2
Dividing by zero ..... 7.NS.A. 2
Dividing mixed numbers with negatives ..... 7.NS.A. 2
Dividing positive and negative fractions ..... 7.NS.A. 2
Equivalent expressions with negative numbers (multiplication and ..... 7.NS.A. 2division)
The Real and Complex Number Systems
Perform Operations Standards Alignment
RIT Range: 224-227
Exponents with negative fractional bases ..... 7.NS.A. 2
Multiplying \& dividing negative numbers ..... 7.NS.A. 2
Multiplying \& dividing negative numbers word problems ..... 7.NS.A. 2
Multiplying positive and negative fractions ..... 7.NS.A. 2
Negative signs in fractions ..... 7.NS.A. 2
Signs of expressions ..... 7.NS.A. 2
Signs of expressions challenge ..... 7.NS.A. 2
Simplify complex fractions ..... 7.NS.A. 2 | 7.NS.A. 3
RIT Range: 232-245
Interpret units in formulas ..... HSN-Q.A. 1
Multiple units word problems ..... HSN-Q.A. 1
RIT Range: 246-255
Classify complex numbers ..... HSN-CN.A. 1
Parts of complex numbers ..... HSN-CN.A. 1
Simplify roots of negative numbers ..... HSN-CN.A. 1
Add \& subtract complex numbers ..... HSN-CN.A. 2
Multiply complex numbers ..... HSN-CN.A. 2
Multiply complex numbers (basic) ..... HSN-CN.A. 2
Powers of the imaginary unit ..... HSN-CN.A. 2

RIT Range: 224-227
Rewriting decimals as fractions challenge
7.EE.B. 3
The Real and Complex Number Systems
Extend and Use Properties Standards Alignment
RIT Range: <160
Compare numbers of objects 1 ..... к.cc.c. 6
RIT Range: 161-178
Halves and fourths ..... 1.G.A. 3
2-digit place value challenge ..... 1.NBT.B. 2
Groups of ten objects ..... 1.NBT.B. 2
Compare 2-digit numbers ..... 1.NBT.B. 3
Compare 2-digit numbers 2 ..... 1.NBT.B. 3
RIT Range: 179-191
Equal parts of circles and rectangles ..... 2.G.A. 3
Hundreds, tens, and ones ..... 2.NBT.A. 1
3-digit place value challenge ..... 2.NBT.A. 3
Compare 3-digit numbers ..... 2.NBT.A. 4
RIT Range: 192-202
Cut shapes into equal partsIdentify unit fractionslentionIdentify numerators and denominators3.NF.A. 1
Recognize fractions ..... 3.NF.A. 1
Recognize fractions greater than 1 ..... 3.NF.A. 1
Find 1 on the number line ..... 3.NF.A. 2
Fractions on the number line ..... 3.NF.A. 2
Unit fractions on the number line ..... 3.NF.A. 2
Relate fractions to 1 ..... 3.NF.A. 2 | 3.NF.A. 3
Compare fractions of different wholes ..... 3.NF.A. 3
Compare fractions with the same denominator ..... 3.NF.A. 3
Compare fractions with the same numerator ..... 3.NF.A. 3
The Real and Complex Number Systems
Extend and Use Properties Standards Alignment
RIT Range: 192-202
Compare fractions with the same numerator or denominator ..... 3.NF.A. 3
Equivalent fraction models ..... 3.NF.A. 3
Equivalent fractions on the number line ..... 3.NF.A. 3
Visually compare fractions 1 ..... 3.NF.A. 3
Write fractions as whole numbers ..... 3.NF.A. 3
RIT Range: 203-212
Creating largest or smallest number ..... 4.NBT.A. 1
Divide whole numbers by 10 ..... 4.NBT.A. 1
Multiply and divide by 10 ..... 4.NBT.A. 1
Multiply whole numbers by 10 ..... 4.NBT.A. 1
Place value when multiplying and dividing by 10 ..... 4.NBT.A. 1
Compare multi-digit numbers ..... 4.NBT.A. 2
Compare multi-digit numbers word problems ..... 4.NBT.A. 2
Compare numbers: place value challenge ..... 4.NBT.A. 2
Intro to place value ..... 4.NBT.A. 2
Regroup whole numbers ..... 4.NBT.A. 2
Whole number place value challenge ..... 4.NBT.A. 2
Write numbers in written form ..... 4.NBT.A. 2
Write whole numbers in expanded form ..... 4.NBT.A. 2
Equivalent fractions ..... 4.NF.A. 1
Equivalent fractions (fraction models) ..... 4.NF.A. 1
Common denominators ..... 4.NF.A. 2
Compare fractions and mixed numbers ..... 4.NF.A. 2
Compare fractions with different numerators and denominators ..... 4.NF.A. 2
Equivalent fractions and different wholes ..... 4.NF.A. 2
The Real and Complex Number Systems
Extend and Use Properties Standards Alignment
RIT Range: 203-212
Order fractions 4.NF.A. 2
Visually compare fractions with unlike denominators ..... 4.NF.A. 2
Rewrite mixed numbers and improper fractions ..... 4.NF.B. 3
Decompose fractions with denominators of 100 ..... 4.NF.C. 5
Decimals on the number line: hundredths ..... 4.NF.C. 6
Decimals on the number line: tenths ..... 4.NF.C. 6
Compare decimals (tenths and hundredths) ..... 4.NF.C. 7
Compare decimals and fractions ..... 4.NF.C. 7
Compare decimals visually ..... 4.NF.C. 7
RIT Range: 213-219
Graph points ..... 5.G.A. 1
Identify coordinates ..... 5.G.A. 1
Identify points ..... 5.G.A. 1
Compare decimal place value ..... 5.NBT.A. 1
Value of a digit ..... 5.NBT.A. 1
Understanding moving the decimal ..... 5.NBT.A. 2
Compare decimals challenge ..... 5.NBT.A. 3
Compare decimals through thousandths ..... 5.NBT.A. 3
Compare decimals word problems ..... 5.NBT.A. 3
Decimals in expanded form ..... 5.NBT.A. 3
Decimals in written form ..... 5.NBT.A. 3
Order decimals ..... 5.NBT.A. 3
Place value names ..... 5.NBT.A. 3
Regroup decimals ..... 5.NBT.A. 3
Fractions as division ..... 5.NF.B. 3
The Real and Complex Number Systems
Extend and Use Properties Standards Alignment
RIT Range: 220-223
Interpreting negative numbers ..... 6.NS.C. 5
Missing numbers on the number line ..... 6.NS.C. 6
Negative decimals on the number line ..... 6.NS.C. 6
Negative numbers on the number line ..... 6.NS.C. 6
Negative symbol as opposite ..... 6.NS.C. 6
Number opposites ..... 6.NS.C. 6
Number opposites challenge ..... 6.NS.C. 6
Points on the coordinate plane ..... 6.NS.C. 6
Quadrants on the coordinate plane ..... 6.NS.C. 6
Rational numbers on the number line ..... 6.NS.C. 6
Coordinate plane problems in all four quadrants ..... 6.NS.C. 6 | 6.NS.C. 8
Distance between points: vertical or horizontal ..... 6.NS.C.6 | 6.NS.C. 8
Reflecting points in the coordinate plane ..... 6.NS.C. 6 | 6.NS.C. 8
Compare and order absolute values ..... 6.NS.C. 7
Compare and order rational numbers ..... 6.NS.C. 7
Comparing absolute values challenge ..... 6.NS.C. 7
Finding absolute values ..... 6.NS.C. 7
Interpreting absolute value ..... 6.NS.C. 7
Negative numbers, variables, number line ..... 6.NS.C. 7
Ordering negative numbers ..... 6.NS.C. 7
Ordering small negative numbers ..... 6.NS.C. 7
Writing numerical inequalities ..... 6.NS.C. 7
RIT Range: 228-231
Classify numbers ..... 8.NS.A. 1
Classify numbers: rational \& irrational ..... 8.NS.A. 1
The Real and Complex Number Systems
Extend and Use Properties Standards Alignment
RIT Range: ..... 228-231
Converting multi-digit repeating decimals to fractions ..... 8.NS.A. 1
Converting repeating decimals to fractions ..... 8.NS.A. 1
Writing fractions as repeating decimals ..... 8.NS.A. 1
Approximating square roots (1) ..... 8.NS.A. 2
Approximating square roots (2) ..... 8.NS.A. 2
Comparing irrational numbers ..... 8.NS.A. 2
Comparing irrational numbers with a calculator ..... 8.NS.A. 2
RIT Range: 232-245
4th \& 5th roots ..... HSN-RN.A. 2
Evaluate radical expressions challenge ..... HSN-RN.A. 2
Fractional exponents ..... HSN-RN.A. 2
Properties of exponents (rational exponents) ..... HSN-RN.A. 2
Properties of exponents challenge (rational exponents) ..... HSN-RN.A. 2
Rational exponents challenge ..... HSN-RN.A. 2
Simplify square roots HSN-RN.A. 2
Simplify square-root expressions ..... HSN-RN.A. 2
Simplify square-roots (variables) ..... HSN-RN.A. 2
Unit-fraction exponents ..... HSN-RN.A. 2
Rational vs. irrational expressions ..... HSN-RN.B. 3
Geometry
Geometric Measurement and Relationships Standards Alignment
RIT Range: <160
Name shapes 1 ..... K.G.A. 1
Relative position ..... K.G.A. 1
Name shapes 2 ..... K.G.A. 2
Compare shapes ..... K.G.B. 4
Compose shapes ..... к.G.B. 6
Compare size ..... K.MD.A. 2
RIT Range: 161-178
Name shapes 3 ..... 1.G.A. 1
Indirect measurement ..... 1.MD.A. 1
Order by length ..... 1.MD.A. 1
Measure lengths 1 ..... 1.MD.A. 2
Tell time to hour or half hour ..... 1.MD.B. 3
RIT Range: 179-191
Name shapes 4 ..... 2.G.A. 1
Measure lengths 2 ..... 2.MD.A. 1
Estimate lengths ..... 2.MD.A. 3
Length word problems ..... 2.MD.B. 5
Tell time with a labeled clock ..... 2.MD.C. 7
Tell time without labels ..... 2.MD.C. 7
RIT Range: 192-202
Tell time to the nearest minute ..... 3.MD.A. 1
Telling time on the number line ..... 3.MD.A. 1
Telling time word problems (within the hour) ..... 3.MD.A. 1
Time differences (within the hour) ..... 3.MD.A. 1
Time word problems with number line ..... 3.MD.A. 1
Geometry
Geometric Measurement and Relationships Standards Alignment
RIT Range: 192-202
Word problems with mass ..... 3.MD.A. 2
Word problems with volume ..... 3.MD.A. 2
Estimate mass (grams and kilograms) ..... 3.MD.A. 2 | 4.MD.A. 1
Estimate volume (milliliters and liters) ..... 3.MD.A. 2 | 4.MD.A. 1
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: 203-212
Estimate mass (grams and kilograms) 3.MD.A. 2 | 4.MD.A. 1
Estimate volume (milliliters and liters) ..... 3.MD.A. 2 | 4.MD.A. 1
Angle types ..... 4.G.A. 1
Draw parallel and perpendicular lines ..... 4.G.A. 1
Geometry
Geometric Measurement and Relationships Standards Alignment
RIT Range: 203-212
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
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 ..... 4.G.A. 2
Estimating length (in, $\mathrm{ft}, \mathrm{yd}$, 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
Draw angles ..... 4.MD.C. 6
Measure angles ..... 4.MD.C. 6
Angles in circles ..... 4.MD.C. 6 | 5.MD.C. 5
Decompose angles ..... 4.MD.C. 7
Geometry
Geometric Measurement and Relationships Standards Alignment
RIT Range: 213-219
Angles in circlesCoordinate plane word problems (quadrant 1 - challenging)5.G.A. 2
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
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 formula intuition ..... 5.MD.C. 5
Volume word problems ..... 5.MD.C. 5
RIT Range: 220-223
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: 220-223
Volume by multiplying area of base times height ..... 6.G.A. 2
Volume with cubes with fraction lengths ..... 6.G.A. 2
Volume with fractions ..... 6.G.A. 2
Volume word problems: fractions \& decimals ..... 6.G.A. 2
Area and perimeter on the coordinate plane ..... 6.G.A. 3
Drawing polygons with coordinates ..... 6.G.A. 3
Quadrilateral problems on the coordinate plane ..... 6.G.A. 3
Find surface area by adding areas of faces ..... 6.G.A. 4
Nets of polyhedra ..... 6.G.A. 4
Surface area ..... 6.G.A. 4
Surface area using nets ..... 6.G.A. 4
Surface area word problems ..... 6.G.A. 4
RIT Range: 224-227
Constructing scale drawings ..... 7.G.A. 1
Corresponding sides and points ..... 7.G.A. 1
Explore scale copies ..... 7.G.A. 1
Identify scale copies ..... 7.G.A. 1
Relate scale drawings to area ..... 7.G.A. 1
Scale drawings ..... 7.G.A. 1
Scale factor in scale drawings ..... 7.G.A. 1
Constructing triangles ..... 7.G.A. 2
Ordering triangle sides and angles ..... 7.G.A. 2
Triangle side length rules ..... 7.G.A. 2
Cross sections of 3D objects (basic) ..... 7.G.A. 3 | HSG-GMD.B. 4
Area and circumference of circles challenge ..... 7.G.B. 4
Geometry
Geometric Measurement and Relationships Standards Alignment
RIT Range: 224-227
Area and circumference of parts of circles ..... 7.G.B. 4
Area of a circle ..... 7.G.B. 4
Circumference of a circle ..... 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 missing angles ..... 7.G.B. 5
Identifying supplementary, complementary, and vertical angles ..... 7.G.B. 5
Quadrilateral 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: 228-231
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
Solid geometry ..... 8.G.C. 9 | HSG-GMD.A. 3
Solid geometry word problems ..... 8.G.C. 9 | HSG-GMD.A. 3 | HSG-MG.A. 1
RIT Range: 232-255
Cross sections of 3D objects (basic) ..... 7.G.A. 3 | HSG-GMD.B. 4
Solid geometry 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: 232-255
Inscribed angles ..... HSG-C.A. 2
Inscribed shapes ..... HSG-C.A. 2
Tangents of circles problems ..... HSG-C.A. 2
Quiz: 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 problemsCross 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
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

## Geometry

Geometric Measurement and Relationships Standards Alignment
RIT Range: 232-255
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: 203-212

## Draw lines of symmetry and symmetrical figures <br> 4.G.A. 3

Identify lines of symmetry $\quad$ 4.G.A.3
Identify symmetrical figures 4.G.A.3

## RIT Range: 228-231

Find measures using rigid transformations
Rigid transformations: preserved properties
Mapping shapes

## Determine rotations

## Determine translations

## Reflect points

Rotate points

## Translate points

Determine reflections

## Reflect shapes

## Translate shapes

## Identify transformations

Congruence \& transformations
Dilations and properties
Dilate triangles

## Dilations: scale factor

## Dilate points

Similarity \& transformations
Angle relationships with parallel lines
8.G.A. 1 | 8.G.A. 2 | HSG-CO.A. 2 | HSGCO.B. 6
8.G.A. 1 | 8.G.A. 2 | HSG-CO.A. 2 | HSGCO.B. 6
8.G.A. 1 | 8.G.A. 2 | HSG-CO.A. 5
8.G.A. 1 | 8.G.A. $3 \mid$ HSG-CO.A. $2 \mid$ HSGCO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 2 | HSGCO.A. 5
8.G.A. 1 | 8.G.A. $3 \mid$ HSG-CO.A. 2 | HSGCO.A. 5
8.G.A. 1 | 8.G.A. $3 \mid$ HSG-CO.A. $2 \mid$ HSGCO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 2 | HSGCO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 5
8.G.A. 1 | HSG-CO.A. 4 | HSG-CO.A. 5
8.G.A. 2 | HSG-CO.B. 6
8.G.A. 3 | 8.G.A. 4
8.G.A. 3 | 8.G.A. 4 | HSG-SRT.A. 1 | HSGSRT.A. 2
8.G.A. 3 | 8.G.A. 4 | HSG-SRT.A. 1 | HSGSRT.A. 2
8.G.A. 3 | HSG-SRT.A. 1
8.G.A. 4 | HSG-SRT.A. 2

## Geometry

Congruence, Similarity, Right Triangles, \& Trig Standards Alignment

## RIT Range: 228-231

Equation practice with angle addition ..... 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 trianglesUse area of squares to visualize Pythagorean theorem8.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 and perimeter ..... 8.G.B. 7
Use Pythagorean theorem to find isosceles triangle side lengths ..... 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: 232-255
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-со.b. 6
Mapping shapesDetermine rotations
${ }_{\text {C.G.A. } 1}$ | 8.G.A. 3 | HSG-CO.A. 2 | HSG-CO.A. 5
Determine translations 8.G.A. 1
CO.A. 5
Reflect points
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 2 | HSG-CO.A. 5
Rotate points ..... 8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 2 | HSG-
Translate points8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 2 | HSG-
Geometry
Congruence, Similarity, Right Triangles, \& Trig Standards Alignment
RIT Range: 232-255
Determine reflections
Reflect shapes
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 5
8.G.A. 1 | 8.G.A. 3 | HSG-CO.A. 5
8.G.A. 1 | HSG-CO.A. 4 | HSG-CO.A. 5
8.G.A. 2 | HSG-CO.B. 6
SRT.A. 2
8.G.A. 3 | 8.G.A. 4 | HSG-SRT.A. 1 | HSG-
SRT.A. 2
8.G.A. 3 | HSG-SRT.A. 1
8.G.A. 4 | HSG-SRT.A. 2
Similarity \& transformations
Find angles in isosceles triangles
Geometric definitions
8.G.A. 5 | HSG-SRT.B. 5
HSG-CO.A. 1
Sequences of transformations HSG-CO.A. 2
Defining transformations HSG-CO.A. 2 | HSG-CO.A. 4
Determine reflections (advanced)
Symmetry of 2D shapes
HSG-CO.A. 2 | HSG-CO.A. 5
Advanced reflectionsHSG-CO.A. 3Rotate shapesHSG-CO.A. 5
Rotate shapes: center $\neq(0,0)$ ..... HSG-CO.A. 5
Determine mappings ..... HSG-CO.B. 6
Proofs with transformations ..... HSG-CO.C. 9
Similarity \& transformations (advanced) ..... HSG-SRT.A. 2
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
Geometry
Congruence, Similarity, Right Triangles, \& Trig Standards Alignment
RIT Range: 232-255
Solve similar triangles (advanced) ..... HSG-SRT.B. 5
Solve similar triangles (basic) ..... HSG-SRT.B. 5
Solve triangles: angle bisector theorem ..... HSG-SRT.B. 5
Use similar \& congruent triangles ..... HSG-SRT.B. 5
DEPRECATED Trigonometry 0.5 HSG-SRT.C. 6
DEPRECATED Trigonometry 1.5 HSG-SRT.C. 6
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
Statistics and Probability
Interpreting Categorical and Quantitative Data Standards Alignment
RIT Range: <160
Compare numbers of objects 2 ..... K.MD.B. 3
RIT Range: 161-178
Solve problems with bar graphs 1 ..... 1.MD.C. 4
RIT Range: 179-191
Solve problems with bar graphs 2 ..... 2.MD.D. 10
Solve problems with picture graphs 1 ..... 2.MD.D. 10
Make bar graphs 1 ..... 2.MD.D. 9
Make line plots ..... 2.MD.D. 9
Solve problems with line plots ..... 2.MD.D. 9
RIT Range: 192-202
Create bar graphs ..... 3.MD.B. 3
Create picture graphs (picture more than 1) ..... 3.MD.B. 3
Read bar graphs and solve 1-step problems ..... 3.MD.B. 3
Read bar graphs and solve 2 step problems ..... 3.MD.B. 3
Read picture graphs ..... 3.MD.B. 3
Read picture graphs (multi-step problems) ..... 3.MD.B. 3
Graph data on line plots ..... 3.MD.B. 4
Read line plots (data with fractions) ..... 3.MD.B. 4
RIT Range: 203-212
Interpret dot plots with fractions 1 ..... 4.MD.B. 4
RIT Range: 213-219
Interpret dot plots with fraction operations ..... 5.MD.B. 2
RIT Range: 220-223
Statistical questions ..... 6.SP.A. 1
Statistics and Probability
Interpreting Categorical and Quantitative Data Standards Alignment
RIT Range: 220-223
Clusters, gaps, peaks, \& outliers ..... 6.SP.A. 2
Shape of distributions ..... 6.SP.A. 2
Reading box plots 6.SP.A. 2 | 6.SP.B. 4 | 6.SP.B. 5
Reading dot plots \& frequency tablesData set warm-up
6.SP.A. 3 | 6.SP.B. 5
Effects of shifting, adding, \& removing a data pointCreate histograms6.SP.B. 4
Creating box plots ..... 6.SP.B. 4
Creating dot plots ..... 6.SP.B. 4
Creating frequency tables ..... 6.SP.B. 4
Calculating the mean: data displays ..... 6.SP.B. 4 | 6.SP.B. 5
Calculating the median: data displays ..... 6.SP.B. 4 | 6.SP.B. 5
Comparing data displays ..... 6.SP.B. 4 | 6.SP.B. 5
Read histograms ..... 6.SP.B.4 | 6.SP.B. 5
Calculating the mean ..... 6.SP.B. 5
Calculating the median ..... 6.SP.B. 5
Interpreting quartiles ..... 6.SP.B. 5
Interquartile range (IQR) ..... 6.SP.B. 5
Median \& range puzzlers ..... 6.SP.B. 5
Missing value given the mean ..... 6.SP.B. 5
RIT Range: 224-227
Comparing distributions ..... 7.SP.B. 3 | 7.SP.B. 4
RIT Range: 228-231
Constructing scatter plots ..... 8.SP.A. 1
Describing trends in scatter plots ..... 8.SP.A. 1
Statistics and Probability
Interpreting Categorical and Quantitative Data Standards Alignment
RIT Range: 228-231
Making good scatter plots ..... 8.SP.A. 1
Positive and negative linear associations from scatter plots ..... 8.SP.A. 1
Eyeballing the line of best fit ..... 8.SP.A. 2
Estimating equations of lines of best fit, and using them to make ..... 8.SP.A. 3 predictions
Interpreting slope and y-intercept for linear models ..... 8.SP.A. 3
Estimating slope of line of best fitInterpreting two-way tables8.SP.A. 4
Reading two-way frequency tables ..... 8.SP.A. 4
Reading two-way relative frequency tables ..... 8.SP.A. 4
Two-way frequency tables ..... 8.SP.A. 4
Two-way relative frequency tables ..... 8.SP.A. 4
RIT Range: 232-255
Estimating slope of line of best fitComparing data distributions
HSS-ID.A. 1 | HSS-ID.A. 2 | HSS-ID.A. 3
Standard deviation of a population ..... HSS-ID.A. 2
Empirical rule ..... HSS-ID.A. 4
Normal distribution: Area above or below a point ..... HSS-ID.A. 4
Normal distribution: Area between two points ..... HSS-ID.A. 4
Z-scores 1 ..... HSS-ID.A. 4
Trends in categorical data ..... HSS-ID.B. 5
Fitting quadratic and exponential functions to scatter plots ..... HSS-ID.B. 6
Correlation coefficient intuition ..... HSS-ID.C. 8
Types of statistical studies ..... HSS-ID.C. 9
Statistics and Probability
Using Sampling and Probability to Make Decisions Standards Alignment
RIT Range: 224-227
Making inferences from random samples 7.SP.A. 1 | 7.SP.A. 2
Valid claims ..... 7.SP.A. 1 | 7.SP.A. 2
Probability models 7.SP.C. 5 | 7.SP.C. 6 | 7.SP.C. 7
Experimental probability7.SP.C. 6
Making predictions with probability ..... 7.SP.C. 6 | 7.SP.C. 7
Simple probability7.SP.C. 7
Probabilities of compound events ..... 7.SP.C. 8
Sample spaces for compound events ..... 7.SP.C. 8
The counting principle ..... 7.SP.C. 8
RIT Range: 232-255
Basic set notation ..... HSS-CP.A. 1
Subsets of sample spaces ..... HSS-CP.A. 1
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
Dependent probability ..... HSS-CP.B. 6
Adding probabilities ..... HSS-CP.B. 7
Simple hypothesis testing ..... HSS-IC.A. 2
Types of statistical studiesHSS-IC.B. 3 | HSS-IC.B. 6
Hypothesis testing in experiments ..... HSS-IC.B. 5

NWEA® is a not-for-profit organization that supports students and educators worldwide by providing assessment solutions, insightful reports, professional learning offerings, and research services. Visit NWEA.org to find out how NWEA can partner with you to help all kids learn.

