

**8.2: Number & Operations: Real Numbers****8.2A(S)**

<b>Skill Code</b>	<b>Description</b>
147007	Determine relationships between subsets of real numbers

**8.2B(S)**

<b>Skill Code</b>	<b>Description</b>
58105	Estimate irrational numbers, integer radicands, including number line representations
58107	Estimate irrational numbers, fraction radicands, including number line representations
58106	Estimate irrational numbers, decimal radicands, including number line representations
58108	Estimate irrational numbers, including number line representations
58104	Identify location of rational or irrational numbers on number lines
381010	Estimate irrational values, including negatives
1040025	Given area or square, estimate side length

**8.2C(S)**

<b>Skill Code</b>	<b>Description</b>
502009	Identify correct conversion of number from scientific notation with positive exponent to standard form
502011	Identify correct conversion of number from scientific notation with negative exponent to standard form
502001	Identify correct conversion of number from standard form to scientific notation with positive exponent
502003	Identify correct conversion of number from standard form to scientific notation with negative exponent
502017	Identify correct conversion of number between scientific notation & standard form
502019	Convert number between scientific notation & standard form
502016	n

**8.2D(R)**

<b>Skill Code</b>	<b>Description</b>
147006	Order real numbers, positive exponents, percents are whole, including real-world context
147016	Order real numbers, positive exponents, percents are whole, including real-world context
147005	Order real numbers, exponents are positive

**8.3: Proportionality: Dilations****8.3A(S)**

Skill Code	Description
1062046	Given similar figures, identify proportion of side lengths
1062870	Given similar figures, identify proportion of side lengths, triangles & quadrilaterals
1062871	Given similar figures, identify proportion of side lengths, image orientations differ
<b>8.3B(S)</b>	
Skill Code	Description
1063006	Identify characteristics of dilations
1063501	Given similar figures, identify description of transformations
1063506	Identify congruence transformations
<b>8.3C(R)</b>	
Skill Code	Description
1063005	Identify rule or dilated point on coordinate plane, including variable scale factors
1638102	Determine variable scale factor or variable measurement of dilated figures
<b>8.4: Proportionality: Slope</b>	
<b>8.4A(S)</b>	
Skill Code	Description
301201	Given right triangle, use legs to determine slope, real-world context
301100	Given graph of similar right triangles, identify equivalent slopes
<b>8.4B(R)</b>	
Skill Code	Description
760001	Determine graph of proportional relationship real-world context
760002	Given unit rate, determine graph of proportional relationship, real-world context
<b>8.4C(R)</b>	
Skill Code	Description
301016	Given linear graph, determine rate of change, integer solution
301015	Given linear graph, determine rate of change
301026	Given linear graph, determine slope & y-intercept, integer slope
301027	Given linear graph, determine slope & y-intercept
301130	Given table of linear equation, determine rate of change
301135	Given table of linear function, determine slope & y-intercept
301136	Given graph or table of linear function, determine slope or y-intercept, real-world context

**8.5: Proportionality: Function Concepts****8.5A(S)**

<b>Skill Code</b>	<b>Description</b>
148100	Given table, determine constant of proportionality, graph, or equation
148300	Given graph, determine constant of proportionality, table, or equation
148500	Given equation, determine constant of proportionality, graph, or table
148200	Given constant of proportionality, determine table, graph, or equation
301500	Identify linear table with most extreme rate of change
301501	Identify linear graph with most extreme rate of change
301502	Compare rates of changes represented differently
301503	Given description, compare rates of change real-world context

**8.5B(S)**

<b>Skill Code</b>	<b>Description</b>
313014	Form 1 - Given slope & intercept, interpret linear relationship, determine slope-intercept equation, & graph, positive slope, only input to output questions
313016	Form 3 - Given slope & intercept, interpret linear relationship, determine slope-intercept equation, & graph, including negative slope
313101	Given slope & intercept, interpret linear relationship & determine slope-intercept equation, including negative slope
313070	Form 6 - Given linear graph, interpret linear relationship & determine slope-intercept equation
306731	Given linear graph, identify equation in slope-intercept form, integer slopes, various scales
307730	Given linear graph, determine equation in slope-intercept form, fractional slopes
372003	Given description of linear equation, identify graph, integer slope, real-world context
307507	Given description of linear equation, identify graph, fractional slope, real-world context
302029	Given description of linear relationship, identify graph, table, or equation, real-world context

**8.5C(S)**

<b>Skill Code</b>	<b>Description</b>
1153502	Identify linear & nonlinear associations in scatter plots

<b>8.5D(R)</b>	
<b>Skill Code</b>	<b>Description</b>
314011	Sketch line of best fit
314020	Sketch line of best fit & determine predicted value
314006	Sketch line of best fit & determine equation, graph scales of one
314009	Sketch line of best fit & determine equation, graph various scales
314010	Sketch line of best fit & determine equation, real-world context
314012	Sketch line of best fit & determine equation
<b>8.5E(S)</b>	
<b>Skill Code</b>	<b>Description</b>
602008	Determine direct variation equation, multiple choice
602007	Given point & "y varies directly with x", determine equation
602011	Given point, "y varies directly with x", & another value, determine equation & missing number
602012	Given point, "y varies directly with x", & another value, determine equation & missing number, rational numbers
602025	Solve word problems involving direct variation
<b>8.5F(S)</b>	
<b>Skill Code</b>	<b>Description</b>
148601	Identify tables showing proportional relationship
148602	Identify graphs showing proportional relationship
148603	Identify equations showing proportional relationship
148600	Identify tables, graphs, or equations showing proportional relationship
<b>8.5G(R)</b>	
<b>Skill Code</b>	<b>Description</b>
520024	Identify & justify functions & non-functions, graphical representations
520046	Determine & justify functions, mapping representations, no domain & range language
520044	Determine & justify functions, set representations, no domain & range language
520045	Determine & justify functions, table representations, no domain & range language
520004	Identify & determine functions, set & table representations
520043	Determine functions, graphical representations
520047	Determine functions, multiple representations, including justification, no domain & range language

520048	Given step graphs, identify functions
<b>8.5H(S)</b>	
<b>Skill Code</b>	<b>Description</b>
760003	Identify proportional & non-proportional relationships, real-world context
<b>8.5I(R)</b>	
<b>Skill Code</b>	<b>Description</b>
302001	Given slope & y-intercept, determine equation
305200	Given table, determine linear equation, $m = 1$
302020	Given linear table, determine slope, y-intercept, & equation
349001	Given table, identify linear equation in slope-intercept form, rational constants & coefficients
302028	Identify equivalent representations of linear relationship, including real-world context
302021	Given linear graph, determine slope, y-intercept, & equation
348126	Given linear graph, determine equation in slope-intercept form, $m = +/- 1$ , various scales
306734	Given linear graph, determine equation in slope-intercept form, integer slopes, various scales
314500	Given linear equation, interpret slope & y-intercept, real-world context
307732	Identify equivalent linear graphs & equations in slope-intercept form, various scales
302019	Given description of linear relationship, determine slope, y-intercept, & equation, real-world context
<b>8.6: Expressions, Equations, &amp; Relationships: Geometric Formulas</b>	
<b>8.6A(S)</b>	
<b>Skill Code</b>	<b>Description</b>
1042010	Given base area & height, determine volume of cylinder
<b>8.6B(N)</b>	
<b>Skill Code</b>	<b>Description</b>
1152103	Identify relationship between volume of cone & cylinder with same base & height
<b>8.6C(S)</b>	
<b>Skill Code</b>	<b>Description</b>
79015	Given Pythagorean theorem model, determine specified component
<b>Expressions, Equations, &amp; Relationships: Geometry Solve</b>	
<b>8.7A(R)</b>	
<b>Skill Code</b>	<b>Description</b>
1042010	Given base area & height, determine volume of cylinder

1042014	Determine volume of cylinders
1042045	Given volume, determine dimension of cylinder
1042015	Determine volume of cones
1042047	Given volume, determine dimension of cone
1042016	Determine volume of spheres
1042001	Determine volume or radius of spheres
1042005	Determine volume of cylinders, cones, & spheres
1042017	Determine volume of cylinders, cones, & spheres, including real-world context
<b>8.7B(R)</b>	
<b>Skill Code</b>	<b>Description</b>
1062044	Determine surface area of rectangular prisms
1062053	Determine surface area of triangular prisms
1042056	Determine surface area of composite figures, rectangular & triangular prism
1042018	Determine lateral surface area of prisms & cylinders
1062037	Determine surface areas of 3D figures
1062038	Determine surface areas of 3D figures, no circles
1042019	Determine lateral & total surface area of prisms & cylinders, including real-world context
<b>8.7C(R)</b>	
<b>Skill Code</b>	<b>Description</b>
78002	Given legs, determine hypotenuse
78006	Given leg & hypotenuse of right triangle, determine other leg
79001	Given two sides, determine missing side of right triangle
79007	Given two sides, determine missing side of right triangle, real-world context
79013	Apply converse of Pythagorean theorem
79011	Solve problems using Pythagorean theorem, including figure, real-world context
79009	Solve problems using Pythagorean theorem, real-world context
79014	Determine side or right triangle or apply converse of Pythagorean theorem, including real-world context
<b>8.7D(S)</b>	
<b>Skill Code</b>	<b>Description</b>
79016	Given segment of coordinate plane, determine length
371004	Determine distance between points on coordinate plane, horizontal or vertical
<b>8.8: Expressions, Equations, &amp; Relationships: Equations &amp; Inequalities</b>	
<b>8.8A(R)</b>	

<b>Skill Code</b>	<b>Description</b>
750500	Determine equations with variables on both sides, real-world context
1803500	Determine inequalities with variables on both sides, real-world context
<b>8.8B(S)</b>	
<b>Skill Code</b>	<b>Description</b>
750501	Given equation with variables on both sides, identify real-world situation represented by equation
1803501	Given inequality with variables on both sides, identify real-world problem modeled by inequality
<b>8.8C(R)</b>	
<b>Skill Code</b>	<b>Description</b>
71005	Solve two-step linear equations, algebra tiles, positive coefficients
71053	Solve two-step linear equations, algebra tiles
84003	Given algebra tiles, determine & solve one-variable equations with variables on both sides
84004	Solve problems that can be represented by multi-step equations, including algebra tiles, real-world context
139050	Identify steps to solve linear equations
84050	Solve linear equations, binomials on both sides, decimals
84052	Solve linear equations, binomials on both sides, fractions
84017	Solve linear equations, distributive property on both sides, rationals
84018	Solve linear equations, distributive property on both sides, additional term on one side
84001	Solve linear equations, variables on both sides, rationals
84002	Determine & solve linear equations with variables on both sides, real-world context
<b>8.8D(S)</b>	
<b>Skill Code</b>	<b>Description</b>
1120019	Given parallel lines with transversal & angle, determine & justify specified angle
1120011	Given parallel lines with transversal & angle, determine corresponding angle, algebraic expressions
1120012	Given parallel lines with transversal & angle, determine alternate interior angle, algebraic expressions
1120013	Given parallel lines with transversal & angle, determine alternate exterior angle, algebraic expressions

1120015	Given parallel lines with transversal & angle, determine same-side interior angle, algebraic expressions
1120014	Given parallel lines with transversal & angle, vertical angle, algebraic expressions
1120016	Given parallel lines with transversal & angle, determine supplement to corresponding angle, algebraic expressions
1120008	Given parallel lines with transversal & angle, specified angle, algebraic expressions
1062102	Given two angle measures in triangle, determine & justify angle measure
1613001	Apply triangle angle sum theorem to determine angles, multiple algebraic expressions
1613002	Apply triangle exterior angle theorem to determine angles, including algebraic expressions
<b>8.9: Expressions, Equations, &amp; Relationships: Simultaneous Linear Equations</b>	
<b>8.9A(S)</b>	
<b>Skill Code</b>	<b>Description</b>
400018	Determine & verify graphical solutions to systems of linear equations, slope-intercept form
400080	Graph systems of linear equations & determine solutions, including real-world context
400095	Given graph of system of linear equations, determine equations in slope-intercept form
<b>8.10: Two-Dimensional Shapes: Transformational Geometry</b>	
<b>8.10A(S)</b>	
<b>Skill Code</b>	<b>Description</b>
1063014	Identify characteristics of transformations
1063506	Identify congruence transformations
<b>8.10B(S)</b>	
<b>Skill Code</b>	<b>Description</b>
1063506	Identify congruence transformations
<b>8.10C(R)</b>	
<b>Skill Code</b>	<b>Description</b>
1063001	Identify rule or reflected point on coordinate plane
1063003	Identify rule or rotated point on coordinate plane
1063004	Identify rule or determine transformed point on coordinate plane
1063002	Identify rule or determine translated point on coordinate plane
1063016	Identify rule or determine transformed point on coordinate plane



<b>8.10D(S)</b>	
<b>Skill Code</b>	<b>Description</b>
1638001	Identify scale factor of dilations, on coordinate plane
1638002	Identify scale factor of dilations, not on coordinate plane
1638007	Identify scale factor of dilations
1638102	Determine variable scale factor or variable measurement of dilated figures
1638100	Determine scale factor or perimeter of dilated figures
1638101	Determine scale factor or area of dilated figures
<b>8.11: Two-Dimensional Shapes: Transformational Geometry</b>	
<b>8.11A(S)</b>	
<b>Skill Code</b>	<b>Description</b>
1153500	Given data, determine scatter plot
1153502	Identify linear & nonlinear associations in scatter plots
1153503	Identify positive & negative correlations in scatter plots
1153501	Identify scatter plots with clustered data
1153504	Identify outliers in scatter plots
1153505	Interpret scatter plots
<b>8.11B(S)</b>	
<b>Skill Code</b>	<b>Description</b>
512050	Determine mean absolute deviation
1811003	Determine mean absolute deviation from dot plots
510500	Determine mean absolute deviation, real-world context
<b>8.11C(N)</b>	
<b>Skill Code</b>	<b>Description</b>
1148100	Identify simulations used to acquire simple random samples
<b>8.12: Personal Financial Literacy</b>	
<b>8.12A(S)</b>	
<b>Skill Code</b>	<b>Description</b>
209017	Determine simple interest & total amount
780100	Determine how interest rates affect total cost or loans
780101	Determine how lengths of loans affect total cost of loans *have students use an online interest calculator
<b>8.12B(N)</b>	
<b>Skill Code</b>	<b>Description</b>
780102	Determine cost of repaying loan *have students use an online interest calculator
780101	Determine how lengths of loans affect total cost of loans *have students use an online interest calculator
<b>8.12C(S)</b>	
<b>Skill Code</b>	<b>Description</b>

780501	Determine savings in loan repayment based on various lengths of repayment
780109	Determine growth of money invested regularly over time
<b>8.12D(R)</b>	
<b>Skill Code</b>	<b>Description</b>
209017	Determine simple interest & total amount
209018	Given simple interest earned, determine principal, rate, or time
209020	Determine interest compounded annually
780500	Determine annually compounded interest
209022	Determine & compare simple & compound interest
780502	Determine compound interest on savings & loans
<b>8.12E(N)</b>	
<b>Skill Code</b>	<b>Description</b>
780104	Identify or explain advantages & disadvantages of various payment methods
<b>8.12F(N)</b>	
<b>Skill Code</b>	<b>Description</b>
780106	Identify benefits & costs of financial responsibility
780105	Identify financially responsible decisions
<b>8.12G(S)</b>	
<b>Skill Code</b>	<b>Description</b>
780505	Determine costs of one year of college education
780503	Estimate costs of two-year college education
780504	Estimate costs of four-year college education
780506	Estimate or determine costs of college education