

### Skills available for Florida high school math standards

Standards are in bold, followed by a list of the IXL math skills that are aligned to that standards. Students can practice these skills online at www.ixl.com.

# Standards: Math Florida Standards (MAFS): Algebra 1

# 912.A Algebra

#### 912.A-APR Arithmetic with Polynomials and Rational Expressions

#### 912.A-APR.1 Perform arithmetic operations on polynomials

912.A-APR.1.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

Model polynomials with algebra tiles (A1-Z.2)

Add and subtract polynomials using algebra tiles (A1-Z.3)

Add and subtract polynomials (A1-Z.4)

Add polynomials to find perimeter (A1-Z.5)

Multiply a polynomial by a monomial (A1-Z.6)

Multiply two polynomials using algebra tiles (A1-Z.7)

Multiply two binomials (A1-Z.8)

Multiply two binomials: special cases (A1-Z.9)

Multiply polynomials (A1-Z.10)

#### 912.A-APR.2 Understand the relationship between zeros and factors of polynomials

912.A-APR.2.3 Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

Solve a quadratic equation using the zero product property (A1-BB.7)

Match quadratic functions and graphs (A1-BB.13)

#### 912.A-CED Creating Equations

# 912.A-CED.1 Create equations that describe numbers or relationships

912.A-CED.1.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational, absolute, and exponential functions.

Write variable equations (A1-I.5)

Model and solve equations using algebra tiles (A1-J.1)

Write and solve equations that represent diagrams (A1-J.2)

Solve linear equations: word problems (A1-J.10)

Write inequalities from graphs (A1-K.2)

Write compound inequalities from graphs (A1-K.13)

Consecutive integer problems (A1-O.3)

Weighted averages: word problems (A1-0.5)

912.A-CED.1.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

Write direct variation equations (A1-R.4)

Slope-intercept form: graph an equation (A1-S.7)

Slope-intercept form: write an equation from a graph (A1-S.8)

Slope-intercept form: write an equation (A1-S.9)

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Slope-intercept form: write an equation from a table (A1-S.10)
Slope-intercept form: write an equation from a word problem (A1-S.11)
Write linear functions to solve word problems (A1-S.13)
Write equations in standard form (A1-S.17)
Standard form: graph an equation (A1-S.19)
Point-slope form: graph an equation (A1-S.22)
Point-slope form: write an equation (A1-S.23)
Graph quadratic functions in vertex form (A1-BB.5)
Write a quadratic function from its vertex and another point (A1-BB.14)
Write linear, quadratic, and exponential functions (A1-CC.3)
Graph an absolute value function (A1-DD.2)
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# 912.A-CED.1.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context.

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Linear inequalities: word problems (A1-T.4)

Solve a system of equations by graphing: word problems (A1-U.3)

Solve a system of equations using substitution: word problems (A1-U.9)

Solve a system of equations using elimination: word problems (A1-U.11)

Solve a system of equations using any method: word problems (A1-U.15)
```

# 912.A-CED.1.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.

```
Rearrange multi-variable equations (A1-I.9)
Rate of travel: word problems (A1-O.4)
```

#### 912.A-REI Reasoning with Equations and Inequalities

#### 912.A-REI.1 Understand solving equations as a process of reasoning and explain the reasoning

912.A-REI.1.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

```
Properties of equality (A1-H.4)

Identify equivalent equations (A1-H.5)

Solve equations: complete the solution (A1-J.7)
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### 912.A-REI.2 Solve equations and inequalities in one variable

# 912.A-REI.2.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

```
Rearrange multi-variable equations (A1-I.9)

Model and solve equations using algebra tiles (A1-J.1)

Write and solve equations that represent diagrams (A1-J.2)

Solve one-step linear equations (A1-J.3)

Solve two-step linear equations (A1-J.4)

Solve advanced linear equations (A1-J.5)

Solve equations with variables on both sides (A1-J.6)

Solve equations: complete the solution (A1-J.7)

Solve linear equations: word problems (A1-J.10)

Solve linear equations: mixed review (A1-J.11)

Identify solutions to inequalities (A1-K.3)

Solve one-step linear inequalities: addition and subtraction (A1-K.4)

Solve one-step linear inequalities: multiplication and division (A1-K.5)
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Solve one-step linear inequalities (A1-K.6)
Solve two-step linear inequalities (A1-K.8)
Solve advanced linear inequalities (A1-K.10)
Solve compound inequalities (A1-K.14)
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#### 912.A-REI.2.4 Solve quadratic equations in one variable.

912.A-REI.2.4.a Use the method of completing the square to transform any quadratic equation in x into an equation of the form  $(x - p)^2 = q$  that has the same solutions. Derive the quadratic formula from this form.

Complete the square (A1-BB.9)

912.A-REI.2.4.b Solve quadratic equations by inspection (e.g., for  $x^2 = 49$ ), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a  $\pm$  bi for real numbers a and b.

```
Solve a quadratic equation using square roots (A1-BB.6)

Solve a quadratic equation using the zero product property (A1-BB.7)

Solve a quadratic equation by factoring (A1-BB.8)

Complete the square (A1-BB.9)

Solve a quadratic equation by completing the square (A1-BB.10)

Solve a quadratic equation using the quadratic formula (A1-BB.11)
```

#### 912.A-REI.3 Solve systems of equations

912.A-REI.3.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.

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Solve a system of equations using elimination (A1-U.10)
Solve a system of equations using elimination: word problems (A1-U.11)
```

# 912.A-REI.3.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

```
Is (x, y) a solution to the system of equations? (A1-U.1)

Solve a system of equations by graphing (A1-U.2)

Solve a system of equations by graphing: word problems (A1-U.3)

Find the number of solutions to a system of equations by graphing (A1-U.4)

Find the number of solutions to a system of equations (A1-U.5)

Classify a system of equations by graphing (A1-U.6)

Solve a system of equations using substitution (A1-U.8)

Solve a system of equations using substitution: word problems (A1-U.9)

Solve a system of equations using elimination (A1-U.10)

Solve a system of equations using elimination: word problems (A1-U.11)

Solve a system of equations using any method (A1-U.14)
```

# 912.A-REI.4 Represent and solve equations and inequalities graphically

912.A-REI.4.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).

```
Relations: convert between tables, graphs, mappings, and lists of points (A1-Q.1) Find values using function graphs (A1-Q.6)

Complete a function table from a graph (A1-Q.9)

Complete a function table from an equation (A1-Q.10)

Interpret the graph of a function: word problems (A1-Q.11)

Complete a table and graph a linear function (A1-S.14)
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912.A-REI.4.11 Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

```
Solve a system of equations by graphing (A1-U.2)

Solve a system of equations by graphing: word problems (A1-U.3)

Find the number of solutions to a system of equations by graphing (A1-U.4)
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912.A-REI.4.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

```
Graph a two-variable linear inequality (A1-T.3)

Solve systems of linear inequalities by graphing (A1-T.6)
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### 912.A-SSE Seeing Structure in Expressions

#### 912.A-SSE.1 Interpret the structure of expressions

912.A-SSE.1.1 Interpret expressions that represent a quantity in terms of its context.

912.A-SSE.1.1.a Interpret parts of an expression, such as terms, factors, and coefficients.

```
Sort factors of variable expressions (A1-I.2)
Polynomial vocabulary (A1-Z.1)
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912.A-SSE.1.1.b Interpret complicated expressions by viewing one or more of their parts as a single entity.

### 912.A-SSE.1.2 Use the structure of an expression to identify ways to rewrite it.

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Simplify variable expressions using properties (A1-H.3)

Simplify variable expressions involving like terms and the distributive property (A1-I.3)

Evaluate expressions using properties of exponents (A1-V.8)

Identify equivalent expressions involving exponents I (A1-V.9)

Identify equivalent expressions involving exponents II (A1-V.10)

Powers of monomials (A1-Y.5)

Factor out a monomial (A1-AA.2)

Factor quadratics: special cases (A1-AA.6)

Simplify radical expressions (A1-EE.1)

Simplify radical expressions with variables (A1-EE.2)

Simplify radical expressions involving fractions (A1-EE.3)

Simplify radical expressions: mixed review (A1-EE.8)
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# 912.A-SSE.2 Write expressions in equivalent forms to solve problems

912.A-SSE.2.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

912.A-SSE.2.3.a Factor a quadratic expression to reveal the zeros of the function it defines.

```
Factor quadratics with leading coefficient 1 (A1-AA.4)
Factor quadratics with other leading coefficients (A1-AA.5)
Factor quadratics: special cases (A1-AA.6)
Solve a quadratic equation by factoring (A1-BB.8)
```

912.A-SSE.2.3.b Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.

```
Characteristics of quadratic functions: equations (A1-BB.2)
Complete the square (A1-BB.9)
```

### 912.A-SSE.2.3.c Use the properties of exponents to transform expressions for exponential functions.

Evaluate expressions using properties of exponents (A1-V.8) Evaluate an exponential function (A1-X.1)

# 912.F Functions

# 912.F-BF Building Functions

#### 912.F-BF.1 Build a function that models a relationship between two quantities

## 912.F-BF.1.1 Write a function that describes a relationship between two quantities.

#### 912.F-BF.1.1.a Determine an explicit expression, a recursive process, or steps for calculation from a context.

Write variable expressions for arithmetic sequences (A1-P.6) Write variable expressions for geometric sequences (A1-P.7) Write a formula for a recursive sequence (A1-P.8) Write linear, quadratic, and exponential functions (A1-CC.3)

# 912.F-BF.1.1.b Combine standard function types using arithmetic operations.

Add and subtract functions (A1-Q.)
Multiply functions (A1-Q.)
Add and subtract polynomials (A1-Z.4)
Multiply polynomials (A1-Z.10)

#### 912.F-BF.1.1.c Compose functions.

Evaluate a function: plug in an expression (A1-Q.8)

#### 912.F-BF.2 Build new functions from existing functions

912.F-BF.2.3 Identify the effect on the graph of replacing f(x) by f(x) + k, kf(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology.

Transformations of linear functions (A1-S.27)

Transformations of quadratic functions (A1-BB.4)

Transformations of absolute value functions (A1-DD.5)

#### 912.F-IF Interpreting Functions

### 912.F-IF.1 Understand the concept of a function and use function notation

912.F-IF.1.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).

Domain and range of relations (A1-Q.2)

Identify independent and dependent variables (A1-Q.3)

Identify functions (A1-Q.4)

Identify functions: vertical line test (A1-Q.5)

Find values using function graphs (A1-Q.6)

Complete a function table from a graph (A1-Q.9)

Complete a function table from an equation (A1-Q.10)

Domain and range of exponential functions: graphs (A1-X.3)

Domain and range of absolute value functions: graphs (A1-DD.3)

Domain and range of absolute value functions: equations (A1-DD.4)

# 912.F-IF.1.2 Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

Find values using function graphs (A1-Q.6)

Evaluate a function (A1-Q.7)

Evaluate a function: plug in an expression (A1-Q.8)

Complete a function table from a graph (A1-Q.9)

Complete a function table from an equation (A1-Q.10)

Interpret functions using everyday language (A1-Q.12)

Evaluate an exponential function (A1-X.1)

Complete a function table: quadratic functions (A1-BB.3)

Complete a function table: absolute value functions (A1-DD.1)

# 912.F-IF.1.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.

Identify arithmetic and geometric sequences (A1-P.1)

Arithmetic sequences (A1-P.2)

Geometric sequences (A1-P.3)

Evaluate variable expressions for number sequences (A1-P.4)

Evaluate recursive formulas for sequences (A1-P.5)

Write variable expressions for arithmetic sequences (A1-P.6)

Write variable expressions for geometric sequences (A1-P.7)

Write a formula for a recursive sequence (A1-P.8)

Number sequences: mixed review (A1-P.9)

# 912.F-IF.2 Interpret functions that arise in applications in terms of the context

# 912.F-IF.2.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.

Identify proportional relationships (A1-R.1)

Find the constant of variation (A1-R.2)

Graph a proportional relationship (A1-R.3)

Identify linear functions from graphs and equations (A1-S.1)

Identify linear functions from tables (A1-S.2)

Find the slope of a graph (A1-S.3)

Slope-intercept form: find the slope and y-intercept (A1-S.6)

Slope-intercept form: graph an equation (A1-S.7)

Complete a table and graph a linear function (A1-S.14)

Standard form: find x- and y-intercepts (A1-S.18)

Standard form: graph an equation (A1-S.19)

Point-slope form: graph an equation (A1-S.22)

Slopes of parallel and perpendicular lines (A1-S.25)

Match exponential functions and graphs (A1-X.2)

Characteristics of quadratic functions: graphs (A1-BB.1)

Characteristics of quadratic functions: equations (A1-BB.2)

Graph quadratic functions in vertex form (A1-BB.5)

Identify linear, quadratic, and exponential functions from graphs (A1-CC.1)

Identify linear, quadratic, and exponential functions from tables (A1-CC.2)

Graph an absolute value function (A1-DD.2)

# 912.F-IF.2.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it

#### describes.

Domain and range of exponential functions: graphs (A1-X.3)

Domain and range of exponential functions: equations (A1-X.4)

Domain and range of absolute value functions: graphs (A1-DD.3)

Domain and range of absolute value functions: equations (A1-DD.4)

912.F-IF.2.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

Rate of change: tables (A1-Q.13)
Find the constant of variation (A1-R.2)
Find the slope of a graph (A1-S.3)
Find the slope from two points (A1-S.4)
Slope-intercept form: find the slope and y-intercept (A1-S.6)

### 912.F-IF.3 Analyze functions using different representations

912.F-IF.3.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

912.F-IF.3.7.a Graph linear and quadratic functions and show intercepts, maxima, and minima.

Slope-intercept form: graph an equation (A1-S.7)
Standard form: graph an equation (A1-S.19)
Point-slope form: graph an equation (A1-S.22)
Characteristics of quadratic functions: graphs (A1-BB.1)
Graph quadratic functions in vertex form (A1-BB.5)

912.F-IF.3.7.b Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

Graph an absolute value function (A1-DD.2)

912.F-IF.3.7.c Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.

Graph quadratic functions in vertex form (A1-BB.5)

912.F-IF.3.7.d Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.

Rational functions: asymptotes and excluded values (A1-GG.1)

912.F-IF.3.7.e Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude, and using phase shift.

Match exponential functions and graphs (A1-X.2)

912.F-IF.3.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

912.F-IF.3.8.a Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.

Characteristics of quadratic functions: graphs (A1-BB.1)

Solve a quadratic equation by factoring (A1-BB.8)

Solve a quadratic equation by completing the square (A1-BB.10)

912.F-IF.3.8.b Use the properties of exponents to interpret expressions for exponential functions.

Evaluate an exponential function (A1-X.1)

Match exponential functions and graphs (A1-X.2) Exponential functions over unit intervals (A1-CC.5)

# 912.F-IF.3.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).

Compare linear functions: graphs and equations (A1-S.15)
Compare linear functions: tables, graphs, and equations (A1-S.16)

### 912.F-LE Linear, Quadratic, and Exponential Models

# 912.F-LE.1 Construct and compare linear, quadratic, and exponential models and solve problems

912.F-LE.1.1 Distinguish between situations that can be modeled with linear functions and with exponential functions.

# 912.F-LE.1.1.a Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

Linear functions over unit intervals (A1-CC.4)

Exponential functions over unit intervals (A1-CC.5)

Describe linear and exponential growth and decay (A1-CC.6)

# 912.F-LE.1.1.b Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

Solve linear equations: word problems (A1-J.10)
Rate of travel: word problems (A1-O.4)
Identify linear and exponential functions from graphs (A1-CC.)
Identify linear, quadratic, and exponential functions from tables (A1-CC.2)

# 912.F-LE.1.1.c Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

Exponential growth and decay: word problems (A1-X.5)

Identify linear and exponential functions from graphs (A1-CC.)

Identify linear, quadratic, and exponential functions from tables (A1-CC.2)

# 912.F-LE.1.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

Write variable expressions for arithmetic sequences (A1-P.6)
Write variable expressions for geometric sequences (A1-P.7)
Slope-intercept form: write an equation from a graph (A1-S.8)
Slope-intercept form: write an equation (A1-S.9)
Slope-intercept form: write an equation from a table (A1-S.10)
Slope-intercept form: write an equation from a word problem (A1-S.11)
Write linear functions to solve word problems (A1-S.13)
Point-slope form: write an equation (A1-S.23)
Point-slope form: write an equation from a graph (A1-S.24)
Write an equation for a parallel or perpendicular line (A1-S.26)
Write linear, quadratic, and exponential functions (A1-CC.3)

912.F-LE.1.3 Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.

### 912.F-LE.2 Interpret expressions for functions in terms of the situation they model

#### 912.F-LE.2.5 Interpret the parameters in a linear or exponential function in terms of a context.

Solve linear equations: word problems (A1-J.10)
Exponential growth and decay: word problems (A1-X.5)

# 912.N Number and Quantity

### 912.N-Q Quantities

#### 912.N-Q.1 Reason quantitatively and use units to solve problems.

912.N-Q.1.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

Scale drawings: word problems (A1-C.7)

Convert rates and measurements: customary units (A1-E.1)

Convert rates and measurements: metric units (A1-E.2)

Unit prices with unit conversions (A1-E.3)

Multi-step problems with unit conversions (A1-E.4)

# 912.N-Q.1.2 Define appropriate quantities for the purpose of descriptive modeling.

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Solve linear equations: word problems (A1-J.10)

Solve a system of equations using any method: word problems (A1-U.15)

Exponential growth and decay: word problems (A1-X.5)
```

# 912.N-Q.1.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

```
Precision (A1-E.5)
Greatest possible error (A1-E.6)
Minimum and maximum area and volume (A1-E.7)
Percent error (A1-E.8)
Percent error: area and volume (A1-E.9)
```

# 912.N-RN The Real Number System

# 912.N-RN.1 Extend the properties of exponents to rational exponents.

912.N-RN.1.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.

Evaluate integers raised to rational exponents (A1-V.11)

# 912.N-RN.1.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.

```
Multiplication with rational exponents (A1-V.)

Division with rational exponents (A1-V.)

Power rule with rational exponents (A1-V.)

Simplify expressions involving rational exponents (A1-V.)

Simplify radical expressions (A1-EE.1)

Simplify radical expressions with variables (A1-EE.2)

Simplify radical expressions involving fractions (A1-EE.3)

Multiply radical expressions (A1-EE.4)

Add and subtract radical expressions (A1-EE.5)

Simplify radical expressions using the distributive property (A1-EE.6)

Divide radical expressions (A1-EE.7)

Simplify radical expressions: mixed review (A1-EE.8)
```

### 912.N-RN.2 Use properties of rational and irrational numbers.

# 912.N-RN.2.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number

and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

Sort rational and irrational numbers (A1-A.8)

Classify rational and irrational numbers (A1-A.9)

Properties of operations on rational and irrational numbers (A1-A.)

# 912.S Statistics and Probability

#### 912.S-ID Interpreting Categorical and Quantitative Data

912.S-ID.1 Summarize, represent, and interpret data on a single count or measurement variable

912.S-ID.1.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).

Create bar graphs, line graphs, and histograms (A1-N.2)

912.S-ID.1.2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Mean, median, mode, and range (A1-KK.2)

Quartiles (A1-KK.3)

Mean absolute deviation (A1-KK.6)

Variance and standard deviation (A1-KK.7)

912.S-ID.1.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).

Interpret box-and-whisker plots (A1-N.5)

Identify an outlier (A1-KK.4)

Identify an outlier and describe the effect of removing it (A1-KK.5)

912.S-ID.2 Summarize, represent, and interpret data on two categorical and quantitative variables

912.S-ID.2.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

Find probabilities using two-way frequency tables (A1-JJ.)

Find conditional probabilities using two-way frequency tables (A1-JJ.)

912.S-ID.2.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

912.S-ID.2.6.a Fit a function to the data; use functions fitted to data to solve problems in the context of the data.

Find the equation of a regression line (A1-KK.13)

Interpret regression lines (A1-KK.14)

Analyze a regression line of a data set (A1-KK.15)

912.S-ID.2.6.b Informally assess the fit of a function by plotting and analyzing residuals.

Interpret a scatter plot (A1-KK.8)

912.S-ID.2.6.c Fit a linear function for a scatter plot that suggests a linear association.

Scatter plots: line of best fit (A1-KK.12)

#### 912.S-ID.3 Interpret linear models

912.S-ID.3.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

Interpret regression lines (A1-KK.14)
Analyze a regression line of a data set (A1-KK.15)

# 912.S-ID.3.8 Compute (using technology) and interpret the correlation coefficient of a linear fit.

Match correlation coefficients to scatter plots (A1-KK.10) Calculate correlation coefficients (A1-KK.11)

# 912.S-ID.3.9 Distinguish between correlation and causation.

For more information about IXL, go to www.ixl.com or send an e-mail to orders@ixl.com.