Students taking the class for normal credit will find their assignments listed first in each section. Honors assignments are *italicized*. Review assignments apply to normal and honors credit classes. With the exception of word problems, write the original questions, show all work, and circle your solution on a sheet of paper.

1 Real Numbers

1.1 Rational Numbers as Decimals

EQ: How can you write repeating decimals as fractions?

Obj: Students will be able to write repeating decimals as fractions.

p. 12 4-19 *p. 12 4-19, Enrichment Handout*	Khan Academy	IXL

1.2 *Understand Irrational Numbers*

EQ: How is an irrational number different from a rational number?

Obj: Students will be able to identify an irrational number.

p. 18 4-19 *p. 18 4-19, Enrichment Handout*	Khan Academy	IXL

1.3 Compare and Order Real Numbers

EQ: How can you compare and order rational and irrational numbers?

Obj: Students will be able to compare and order rational and irrational numbers.

p. 24 4-7, 10-11, 16 *p. 24 4-7, 10-11, 15-16, Enrichment Handout*	Khan Academy	IXL

1.1-1.3 Review

p. 76 1-4 and 1-2, p. 77 1-2 (Regular and Honors)

1.4 Evaluate Square Roots and Cube Roots

EQ: How do you evaluate cube roots and square roots?

Obj: Students will be able to find square roots and cube roots of rational numbers.

1.4 Handout then p. 30 4, 7-9, 11, 17 *1.4 Handout then p. 30 4, 7-15, 17*	Khan Academy	IXL

1.5 *Solve Equations Using Square Roots and Cube Roots*

EQ: How can you solve equations with squares and cubes?

Obj: Students will be able to solve equations involving squares or cubes.

1.5 Handout then p. 37 10-11, 14-15, 17 *1.5 Handout then p. 37 10-11, 14-15, 17-19*	Khan Academy	IXL

1.4-1.5 Review

p. 77 1-4, p. 78 1-5 (Regular and Honors)

1.6 Use Properties of Integer Exponents

EQ: How do properties of integer exponents help you write equivalent expressions?

Obj: Students will be able to use the properties of exponents to write equivalent expressions.

Video: Algebra I, 6.2 and 6.3

p. 44 5-18, 26 *p. 44 5-24, 26*	*Khan Academy*	*IXL*

1.7 More Properties of Integer Exponents

EQ: What do the zero-exponent and negative exponent properties mean?

Obj: Students will be able to write a number with a negative or zero exponent a different way.

Video: Algebra I, 6.1

p. 50 4-6, 9-16, 19 *p. 50 4-6, 9-16, 19, 20a, 21-22, Handout*	*Khan Academy*	*IXL*

1.8 Use Powers of 10 to Estimate Quantities

EQ: When would you use a power of 10 to estimate a quantity?

Obj: Students will be able to estimate large and small quantities using a power of 10.

p. 56 4, 6-8, 10-12, 14, 16-17a *p. 56 4, 6-8, 10-12, 14, 16-17a*	*Khan Academy*	*IXL*

1.6-1.8 Review

p. 78 1-4, p. 79 1-4 and 1-2 (Regular and Honors)

1.9 Understand Scientific Notation

EQ: What is scientific notation and why is it used?

Obj: Students will be able to use scientific notation to write very large or very small quantities.

Video: Algebra I, 7.2

p. 62 4-8, 10-14, 16-19, 21-22 *p. 62 4-8, 10-14, 16-19, 21-22*	*Khan Academy*	*IXL*

1.10 Operations with Numbers in Scientific Notation

EQ: How does using scientific notation help when computing with very large or very small numbers?

Obj: Students will be able to perform operations with numbers in scientific notation.

Video: Algebra I, 7.2

p. 72 4, 6-10, 13-14 *p. 72 4, 6-10, 13-14, 18*	*Khan Academy*	*IXL*

C1 Review

2 Real Numbers

2.1 Combine Like Terms to Solve Equations

EQ: How do you solve equations that contain like terms?

Obj: Students will be able to solve equations that have like terms on one side.

p. *p.*	*Khan Academy*	*IXL*

2.2 Solve Equations with Variables on Both Sides

EQ: How do you use inverse operations to solve equations with variables on both sides?

Obj: Students will be able to solve equations with variables on both sides of the equal sign.

p. *p.*	*Khan Academy*	*IXL*

2.3 Solve Multistep Equations

EQ: How can you use the distributive property to solve multistep equations?

Obj: Students will be able to solve multistep equations and pairs of equations using more than one approach?

p. *p.*	*Khan Academy*	*IXL*

2.4 Equations with No Solutions or Infinitely Many Solutions

EQ: Will a one-variable equation always have one solution?

Obj: Students will be able to determine the number of solutions an equation has.

p. *p.*	*Khan Academy*	*IXL*

2.5 Compare Proportional Relationships

EQ: How can you compare proportional relationships represented in different ways?

Obj: Students will be able to compare proportional relationships represented in different ways.

p. *p.*	*Khan Academy*	*IXL*

2.6 Connect Proportional Relationships and Slope

EQ: What is slope?

Obj: Students will be able to understand the slope of a line.

Video: Algebra I, 3.4

p. *p.*	*Khan Academy*	*IXL*

2.7 *Analyze Linear Equations* $y = mx$

EQ: How does slope relate to the equation for a proportional relationship?

Obj: Students will be able to write equations to describe linear relationships.

Video: Algebra I, 3.4

p. *p.*	*Khan Academy*	*IXL*

2.8 *Understand the y-Intercept of a Line*

EQ: What is the y-intercept and what does it indicate?

Obj: Students will be able to find the y-intercept of a graph and explain what it means.

p. *p.*	*Khan Academy*	*IXL*

2.9 *Analyze Linear Equations* $y = mx + b$

EQ: What is the equation of a line for a nonproportional relationship?

Obj: Students will be able to derive the equation $y = mx + b$.

Video: Algebra I, 3.1 and 3.2

p. *p.*	*Khan Academy*	*IXL*

3 Use Functions to Model Relationships

3.1 Understand Relationships and Functions

EQ: When is a relation a function?

Obj: Students will be able to tell whether a relation is a function.

Video: Algebra I, 3.3

p. *p.*	*Khan Academy*	*IXL*

3.2 Connect Representations of Functions

EQ: What are different representations of a function?

Obj: Students will be able to identify functions by their equations, tables, and graphs.

p. *p.*	*Khan Academy*	*IXL*

3.3 Compare Linear and Nonlinear Functions

EQ: How can you compare two functions?

Obj: Students will be able to compare linear and nonlinear functions.

p. *p.*	*Khan Academy*	*IXL*

3.4 Construct Functions to Model Linear Relationships

EQ: How can you use a function to represent a linear relationship?

Obj: Students will be able to write an equation in the form $y = mx + b$ to describe a linear function.

p. *p.*	*Khan Academy*	*IXL*

3.5 Intervals of Increase and Decrease

EQ: How does a qualitative graph describe the relationship between quantities?

Obj: Students will be able to describe the behavior of a function and write a description to go with its graph.

p. *p.*	*Khan Academy*	*IXL*

3.6 Sketch Functions From Verbal Descriptions

EQ: How does the sketch of a graph of a function help describe its behavior?

Obj: Students will be able to sketch the graph of a function that has been described verbally.

p. *p.*	*Khan Academy*	*IXL*

4 Investigate Bivariate Data

4.1 Construct and Interpret Scatter Plots

EQ: How does a scatter plot show the relationship between paired data?

Obj: Students will be able to construct a scatter plot and use it to understand the relationship between paired data.

p. *p.*	*Khan Academy*	*IXL*

4.2 Analyze Linear Associations

EQ: How can you describe the association of two data sets?

Obj: Students will be able to use a line to represent the relationship between paired data.

p. *p.*	*Khan Academy*	*IXL*

4.3 Use Linear Models to Make Predictions

EQ: How do linear models help you to make a prediction?

Obj: Students will be able to make a prediction by using the equation of a line that closely fits a set of data.

p. *p.*	*Khan Academy*	*IXL*

4.4 Interpret Two-Way Frequency Tables

EQ: How does a two-way frequency table show the relationships between sets of paired data?

Obj: Students will be able to display and interpret relationships between paired categorical data.

p. *p.*	*Khan Academy*	*IXL*

4.5 Interpret Two-Way Frequency Tables

EQ: What is the advantage of a two-way relative frequency table for showing relationships between sets of paired data?

Obj: Students will be able to find the relative frequencies of two-way tables and interpret what they mean.

p. *p.*	*Khan Academy*	*IXL*

5 Analyze and Solve Systems of Linear Equations

5.1 Estimate Solutions by Inspection

EQ: How are slopes and y-intercepts related to the number of solutions of a system of linear equations?

Obj: Students will be able to find the number of solutions of a system of equations by inspecting the equations.

p. *p.*	*Khan Academy*	*IXL*

5.2 Solve Systems by Graphing

EQ: How does the graph of a system of linear equations represent its solution?

Obj: Students will be able to find the solution to a system of equations using graphs.

p. *p.*	*Khan Academy*	*IXL*

5.3 Solve Systems by Substitution

EQ: When is substitution a useful method for solving systems of equations?

Obj: Students will be able to solve systems of equations using substitution.

p. *p.*	*Khan Academy*	*IXL*

5.4 Solve Systems by Elimination

EQ: How are the properties of equality used to solve systems of linear equations?

Obj: Students will be able to solve systems of equations using elimination.

p. *p.*	*Khan Academy*	*IXL*

6 Congruence and Similarity

6.1 Analyze Translations

EQ: How does a translation affect the properties of a two-dimensional figure?

Obj: Students will be able to translate two-dimensional figures.

p. *p.*	*Khan Academy*	*IXL*

6.2 Analyze Reflections

EQ: How does a reflection affect the properties of a two-dimensional figure?

Obj: Students will be able to reflect two dimensional figures.

p. *p.*	*Khan Academy*	*IXL*

6.3 Analyze Rotations

EQ: How does a rotation affect the properties of a two-dimensional figure?

Obj: Students will be able to rotate a two-dimensional figure.

p. *p.*	*Khan Academy*	*IXL*

6.4 Compose Transformations

EQ: How can you use a sequence of transformations to map a preimage to its image?

Obj: Students will be able to describe and perform a sequence of transformations.

p. *p.*	*Khan Academy*	*IXL*

6.5 Understand Congruent Figures

EQ: How does a sequence of translations, reflections, and rotations result in congruent figures?

Obj: Students will be able to use a sequence of translations, reflections, and rotations to show that figures are congruent.

p. *p.*	*Khan Academy*	*IXL*

6.6 Describe Dilations

EQ: What is the relationship between a preimage and its image after a dilation?

Obj: Students will be able to dilate two-dimensional figures.

p. *p.*	*Khan Academy*	*IXL*

6.7 *Understand Similar Figures*

EQ: How are similar figures related by a sequence of transformations?

Obj: Students will be able to use a sequence of transformations, including dilations, to show that figures are similar.

p. *p.*	*Khan Academy*	*IXL*

6.8 *Angles, Lines, and Transversals*

EQ: What are the relationships among angles that are created when a line intersects two parallel lines?

Obj: Students will be able to identify and find the measures of angles formed by parallel lines and a transversal.

p. *p.*	*Khan Academy*	*IXL*

6.9 *Interior and Exterior Angles of Triangles*

EQ: How are the interior and exterior angles of a triangle related?

Obj: Students will be able to find the interior and exterior angle measures of a triangle.

p. *p.*	*Khan Academy*	*IXL*

6.10 *Angle-Angle Triangle Similarity*

EQ: How can you use angle measures to determine whether two triangles are similar?

Obj: Students will be able to use angle measures to determine whether two triangles are similar.

p. *p.*	*Khan Academy*	*IXL*

7 Understand and Apply the Pythagorean Theorem

7.1 Understand the Pythagorean Theorem

EQ: How does the Pythagorean Theorem relate the side lengths of a right triangle?.

Obj: Students will be able to use the Pythagorean Theorem to find unknown sides of triangles.

p. *p.*	*Khan Academy*	*IXL*

7.2 *Understand the Converse of the Pythagorean Theorem*

EQ: How can you determine whether a triangle is a right triangle?

Obj: Students will be able to use the Converse of the Pythagorean Theorem to identify right triangles.

p. *p.*	*Khan Academy*	*IXL*

7.3 *Apply the Pythagorean Theorem to Solve Problems*

EQ: What types of problems can be solved using the Pythagorean Theorem?

Obj: Students will be able to use the Pythagorean Theorem to solve problems.

p. *p.*	*Khan Academy*	*IXL*

7.4 *Find Distance in the Coordinate Plane*

EQ: How can you use the Pythagorean Theorem to find the distance between two points?

Obj: Students will be able to use the Pythagorean Theorem to find the distance between two points in the coordinate plane.

p. *p.*	*Khan Academy*	*IXL*

8 Solve Problems Involving Surface Area and Volume

8.1 Find Surface Area of Three-Dimensional Figures

EQ: How are the areas of polygons used to find the surface area formulas for three-dimensional figures?

Obj: Students will be able to find the surface areas of cylinders, cones, and spheres.

p. *p.*	*Khan Academy*	*IXL*

8.2 *Find Volume of Cylinders*

EQ: How is the volume of a cylinder related to the volume of a rectangular prism?

Obj: Students will be able to use what they know about finding volumes of rectangular prisms to find the volume of a cylinder.

p. *p.*	*Khan Academy*	*IXL*

8.3 *Find Volume of Cones*

EQ: How is the volume of a cone related to the volume of a cylinder?

Obj: Students will be able to find the volume of cones.

p. *p.*	*Khan Academy*	*IXL*

8.4 *Find Volume of Spheres*

EQ: How is the volume of a sphere related to the volume of a cone?

Obj: Students will be able to find the volume of a sphere and use it to solve problems.

p. *p.*	*Khan Academy*	*IXL*