

Students placed in **Geometry** will need to complete the following skills to 80%

Algebra 1

A. Numbers

10

Classify numbers

B. Operations

7

Evaluate variable expressions involving rational numbers

C. Ratios, rates, and proportions

3

Unit rates

7

Scale drawings: word problems

D. Percents

5

Percent of change: word problems

E. Measurement

2

Convert rates and measurements: metric units

F. Geometry

3

Area and perimeter: word problems

4

Volume

5

Surface area

6

Similar figures: side lengths and angle measures

17

Pythagorean theorem: word problems

G. Coordinate plane

2

Midpoint formula: find the midpoint

4

Distance between two points

H. Properties

4

Properties of equality

I. Variable expressions and equations

3

Simplify variable expressions involving like terms and the distributive property

9

Rearrange multi-variable equations

J. Solve equations

9

Create equations with no solutions or infinitely many solutions

K. Single-variable inequalities

11

Graph solutions to advanced linear inequalities

15

Graph solutions to compound inequalities

L. Absolute value equations and inequalities

1

Solve absolute value equations

3

Solve absolute value inequalities

O. Problem solving

4

Rate of travel: word problems

Q. Relations and functions

1

Relations: convert between tables, graphs, mappings, and lists of points

2

Domain and range of relations

3

Identify independent and dependent variables

4

Identify functions

11

Interpret the graph of a function: word problems

R. Direct and inverse variation

1

Identify proportional relationships

4

Write direct variation equations

8

Write and solve inverse variation equations

S. Linear functions

5

Find a missing coordinate using slope

8

Slope-intercept form: write an equation from a graph

14

Complete a table and graph a linear function

15

Compare linear functions: graphs and equations

16

Compare linear functions: tables, graphs, and equations

17

Write equations in standard form

19

Standard form: graph an equation

22

Point-slope form: graph an equation

T. Linear inequalities

2

Linear inequalities: solve for y

3

Graph a two-variable linear inequality

5

Is (x, y) a solution to the system of inequalities?

U. Systems of linear equations

1

Is (x, y) a solution to the system of equations?

2

Solve a system of equations by graphing

15

Solve a system of equations using any method: word problems

V. Exponents

6

Multiplication and division with exponents

7

Power rule

9

Identify equivalent expressions involving exponents I

W. Scientific notation

3

Multiply numbers written in scientific notation

4

Divide numbers written in scientific notation

Y. Monomials

4

Multiply and divide monomials

5

Powers of monomials

Z. Polynomials

1

Polynomial vocabulary

3

Add and subtract polynomials using algebra tiles

5

Add polynomials to find perimeter

8

Multiply two binomials

1. AA. Factoring

2

Factor out a monomial

8

Factor polynomials

BB. Quadratic equations

1

Characteristics of quadratic functions: graphs

10

Solve a quadratic equation by completing the square

13

Match quadratic functions and graphs

EE. Radical expressions

2

Simplify radical expressions with variables

3

Simplify radical expressions involving fractions

4

Multiply radical expressions

5

Add and subtract radical expressions

6

Simplify radical expressions using the distributive property

7

Divide radical expressions

8

Simplify radical expressions: mixed review

FF. Radical functions and equations

2

Domain and range of radical functions: graphs

1. GG. Rational functions and expressions

3

Simplify rational expressions

7

Add and subtract rational expressions

KK. Statistics

2

Mean, median, mode, and range

12

Scatter plots: line of best fit