Students placed in Algebra I will need to complete the following skills to 80%.

Eighth grade math

A. Number theory

1

Factors

2

Divisibility rules

5

Greatest common factor

B. Integers

3

Absolute value and opposite integers

C. Operations with integers

1

Integer addition and subtraction rules

3

Add and subtract integers

6

Integer multiplication and division rules

7

Multiply and divide integers

8

Evaluate numerical expressions involving integers

D. Rational numbers

4

Convert between decimals and fractions or mixed numbers

E. Operations with rational numbers

3

Add and subtract rational numbers: word problems

6

Multiply and divide rational numbers: word problems

F. Exponents and roots

1

Understanding exponents

8

Multiplication with exponents

15

Square roots of perfect squares

G. Scientific notation

1

Convert between standard and scientific notation

H. Ratios, rates, and proportions

1

Understanding ratios

5

Unit rates

7

Solve proportions: word problems

12

Scale drawings: word problems

J. Percents

1

Convert between percents, fractions, and decimals

6

Percents of numbers and money amounts

7

Percents of numbers: word problems

9

Solve percent equations

K. Consumer math

2

Unit prices

5

Percent of a number: tax, discount, and more

10

Simple interest

L. Units of measurement

2

Convert rates and measurements: metric units

M. Problem solving

1

Multi-step word problems

O. Two-dimensional figures

6

Graph triangles and quadrilaterals

7

Find missing angles in triangles

Q. Transformations and similarity

5

Side lengths and angle measures of similar figures

R. Pythagorean theorem

1

Pythagorean theorem: find the length of the hypotenuse

2

Pythagorean theorem: find the missing leg length

T. Geometric measurement

2

Area

3

Area and perimeter: word problems

8

Volume of cubes, prisms, and pyramids

9

V. Expressions and properties

5

Evaluate one-variable expressions

6

Evaluate multi-variable expressions

10

Identify terms and coefficients

12

Properties of addition and multiplication

13

Multiply using the distributive property

15

Add and subtract like terms

W.One-variable equations

1

Which x satisfies an equation?

2

Write an equation from words

8

Solve two-step equations

X.One-variable inequalities

1

Solutions to inequalities

2

Graph inequalities on number lines

4

Solve one-step inequalities

Y.Linear equations

1

Find the slope of a graph

Z.Functions

1

Identify functions

CC.Data and graphs

2

Interpret bar graphs

4

Interpret line graphs

11

Interpret histograms

17

Interpret circle graphs

DD.Statistics

1

Calculate mean, median, mode, and range

EE.Probability

1

Probability of simple events

3

Experimental probability

Additional IXL 8th Grade Math Skills For ALL Students Placed in Algebra for 2020-21

Please read carefully

- (Ctrl + Click on Skill in **green** below) to follow link
- Make sure you are logged into IXL
- These skills are **NOT** starred on IXL

A.6 Least common multiple

F.12 Evaluate expressions using properties of exponents

W.12 Solve equations: mixed review

X.7 Graph solutions to two-step inequalities

Y.3 Find a missing coordinate using slope

Y.5 Graph a line using slope

Y.6 Graph a line from an equation in slope-intercept form

Y.7 Write a linear equation from a slope and y-intercept

Y.8 Write a linear equation from a graph

BB.4 Add and subtract polynomials

BB.5 Add polynomials to find perimeter

BB.6 Multiply monomials