

## Algebra 1 Readiness Checklist

- 8.NS.A.1:** I understand that numbers that are not rational are called irrational.
- 8.NS.A.1:** I can recognize whether a number in decimal form is rational based on a repeating decimal or terminating decimal.
- 8.NS.A.2:** I can use rational approximations to estimate the size of irrational numbers and locate them on a number line.

## Expressions and Equations

- 8.EE.A.1:** I know and can apply the properties of integer exponents to generate equivalent expressions.
- 8.EE.A.2:** I can use square root and cube root symbols to find solutions to specific equations and understand that  $\sqrt{2}$  is irrational.
- 8.EE.A.3:** I can use numbers expressed as a single digit times an integer power of 10 to estimate large or small quantities.
- 8.EE.A.4:** I can perform operations with numbers expressed in scientific notation and choose appropriate units for very large or very small measurements.

## Understanding Proportional Relationships, Lines, and Linear Equations

- 8.EE.B.5:** I can graph proportional relationships and recognize whether a graph represents a proportional relationship.
- 8.EE.B.5:** I can interpret the unit rate of a proportional relationship as the slope of the graph.
- 8.EE.B.6:** I can use similar triangles to understand the concept of slope in the coordinate plane.
- 8.EE.B.6:** I can find the formula of a linear equation from the graph.
- 8.EE.B.6:** I can plot a linear equation of the form  $y = mx + b$ .

## Analyzing and Solving Linear Equations and Pairs of Simultaneous Linear Equations

- 8.EE.C.7:** I can solve linear equations in one variable.
- 8.EE.C.7:** recognizing conditions for a system of two linear equations to have one solution, no solution, or infinitely many solutions.
- 8.EE.C.8:** I can analyze and solve pairs of simultaneous linear equations, both algebraically and graphically.

## Functions

- 8.F.A.1:** I understand the definition of a function can give examples of functions and non-functions.
- 8.F.A.1:** I can differentiate between linear and non-linear functions.

- 8.F.A.2:** I can model linear relationships using functions and interpret the rate of change and initial values.

### **Geometry**

- 8.G.A.1:** I can experimentally verify properties of rotations, reflections, and translations on geometric figures.
- 8.G.A.2:** I understand the concepts of congruence and similarity in two-dimensional figures.
- 8.G.B.6:** I can use the Pythagorean Theorem to solve problems involving right triangles.

### **Statistics and Probability**

- 8.SP.A.1:** I can construct and interpret scatter plots for bivariate data and describe patterns of association.
- 8.SP.A.2:** I understand how to use linear models to solve problems involving two quantitative variables.

This checklist provides an overview of the skills needed to ensure readiness for Algebra 1. These are ideas that would be encountered in a Pre-Algebra course. It's ok for a student to be rusty or weak on some of these ideas. They should serve as a checklist of topics to study or review before starting Algebra 1.