

Algebra 1 Final Exam Study Guide

What are the two methods we have for solving a system of equations? Give a brief explanation of how to use each method.

Method 1:

Method 2:

Exponent Rules

$$x^a \cdot x^b =$$

$$\frac{x^a}{x^b} =$$

$$(x^a)^b =$$

$$(x^a y^b)^c =$$

Scientific Notation

How do you change a number from decimal form to scientific notation?

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Graphing

How do we find x-intercepts?

How do we find y-intercepts?

Percents

What is the proportion we use to solve percent problems?

Rational Expressions

Give instructions on how to do each of the following:

Simplify:

Multiply:

Divide:

Add/Subtract:

Solve Equations:

Give instructions as how to use **long division** to divide polynomials.

Formulas

Exponential Growth:

Exponential Decay:

Standard form of a Quadratic Equation:

x-coordinate of the vertex:

Quadratic Equation:

Discriminant:

Direct Variation:

Inverse Variation:

Distance between Two Points: