Grade 9 Mathematics Formula Sheet

AK STAR
ALASKA SYSTEM OF ACADEMIC READINESS

Below are formulas you may find useful as you work the problems. However, some of the formulas may not be used. You may refer to this page as you take the test.

Slope Formula
$m = \dfrac{y_2 - y_1}{x_2 - x_1}$
Slope-Intercept Form of a Line
$y = mx + b$
Standard Form of a Line
$Ax + By = C$
Point-Slope Form of a Line
$y - y_1 = m(x - x_1)$

Quadratic Formula
$x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Arithmetic Sequence
$a_n = a_1 + (n-1)d$
Geometric Sequence
$a_n = a_1 r^{n-1}$

Unit Conversions

1 mile = 5,280 feet
1 mile = 1,760 yards
1 pound = 16 ounces
1 ton = 2,000 pounds

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 milliliter = 1 cubic centimeter