



Grade 8 Mathematics Formula Sheet

The formulas below are provided to students during testing in both the online testing platform and the printed test booklet. This page may be printed for instructional use during the school year, but it MAY NOT be used as scratch paper during test administration.

Slope Formula

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Slope is the change in the y -value divided by the change in the x -value for two distinct points on a graph.

Linear Equations

Slope-Intercept Form: $y = mx + b$

Point-Slope Form: $y - y_1 = m(x - x_1)$

Standard Form: $Ax + By = C$

Pythagorean Theorem

$$a^2 + b^2 = c^2$$

Volume

Cylinder: $V = \pi r^2 h$

Cone: $V = \frac{1}{3} \pi r^2 h$

Sphere: $V = \frac{4}{3} \pi r^3$

$$\pi \approx 3.14$$