

Grade 8 Formula Sheet

Formulas that you may need on this test are found below.
 You may refer back to this page at any time during the mathematics test.
 You may use calculator π or the number 3.14 as an approximation of π .

2022
Grade 8

Exponential Properties

$$a^m \cdot a^n = a^{m+n}$$

$$(a^m)^n = a^{m \cdot n}$$

$$\frac{a^m}{a^n} = a^{m-n}$$

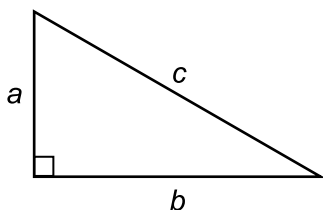
$$a^{-1} = \frac{1}{a}$$

Algebraic Equations

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

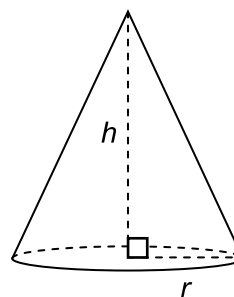
Slope-Intercept Form: $y = mx + b$

Pythagorean Theorem



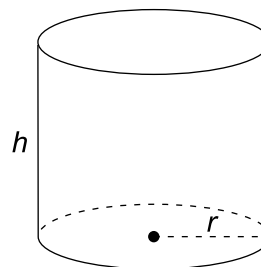
$$a^2 + b^2 = c^2$$

Cone



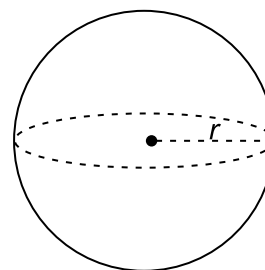
$$V = \frac{1}{3} \pi r^2 h$$

Cylinder



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

Sphere



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