

Definitions and Formulas for Multi-Subject: Teachers of Childhood (Grade 1–Grade 6) Part Two: Mathematics

GEOMETRY

Area of a Rectangle: $A = l \cdot w$

Area of a Triangle: $A = \frac{1}{2}ab$

Area of a Trapezoid: $A = \frac{1}{2}h(b_1 + b_2)$

Lateral Area of a Right Circular Cylinder: $L = 2\pi rh$

Lateral Area of a Right Circular Cone: $L = \pi rl$ where l is the slant height

Surface Area of a Cube: $SA = 6s^2$

Surface Area of a Rectangular Prism: $SA = 2lw + 2hw + 2lh$

Surface Area of a Cylinder: $SA = 2\pi r^2 + 2\pi rh$

Surface Area of a Sphere: $SA = 4\pi r^2$

Volume of a Cube: $V = s^3$

Volume of a Rectangular Prism: $V = l \cdot w \cdot h$

Volume of a Cylinder: $V = \pi r^2 h$

Volume of a Pyramid: $V = \frac{1}{3}Bh$ where B is the area of the base

Volume of a Right Circular Cone: $V = \frac{1}{3}\pi r^2 h$

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

Pythagorean theorem: $a^2 + b^2 = c^2$

COORDINATE GEOMETRY

Equation of a Line: $y = mx + b$

Slope of a Line: $m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$