

Using Formulas

3-Step Process

- 1) Write down the formula or equation
- 2) Substitute
- 3) Solve

ISTEP + Mathematics Reference Sheet









Figure	Formulas for Area (A) and Circumference (C)	
Triangle 	$A = \frac{1}{2}bh$	Area = $\frac{1}{2}$ × base × height
Rectangle 	$A = lw$ $P = 2L + 2W$	Area = length × width
Trapezoid 	$A = \frac{1}{2}h(b_1 + b_2)$	Area = $\frac{1}{2}$ × height × sum of bases
Parallelogram 	$A = bh$	Area = base × height
Square 	$A = s^2$	Area = side × side
Circle 	$A = \pi r^2$ $C = 2\pi r$	Area = π × square of radius Circumference = $2 \times \pi \times$ radius $\pi \approx 3.14$ or $\frac{22}{7}$

Figure	Formulas for Volume (V) and Surface Area (SA)	
Rectangular Prism 	$V = lwh$ $SA = 2lw + 2hw + 2lh$	Volume = length × width × height Surface Area = $2(\text{length} \times \text{width}) + 2(\text{height} \times \text{width}) + 2(\text{length} \times \text{height})$
Cylinder 	$V = \pi r^2 h$ $SA = 2\pi r^2 + 2\pi rh$	Volume = π × square of radius × height Surface Area = $2 \times \pi \times$ square of radius + $2 \times \pi \times$ radius × height