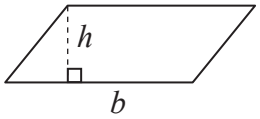
# Formula Sheet

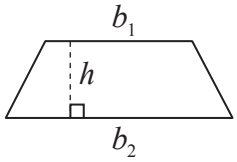
**Note to Student: You may use these formulas throughout this entire test. Feel free to use this Formula Sheet as needed during your testing time.**

**Parallelogram**



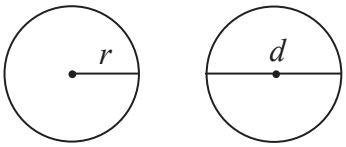

Area $A = bh$

**Trapezoid**




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

**Circle**

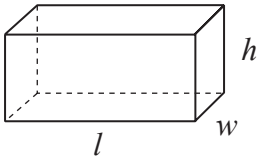



Circumference $C = 2\pi r$

$C = \pi d$

Area $A = \pi r^2$

**Rectangular Solid**

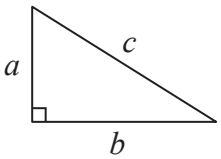



Volume $V = lwh$

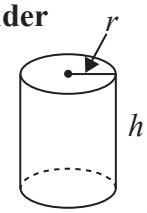
Surface Area $SA = 2lw + 2lh + 2hw$

**Pythagorean Theorem**

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



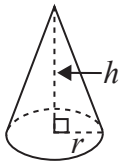

**Cylinder**




Volume

$V = \pi r^2 h$

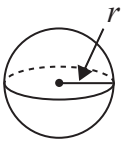
**Cone**




Volume

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

**Sphere**




Volume

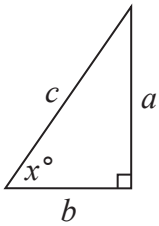
$V = \frac{4}{3}\pi r^3$

**Trigonometric Ratios**

$\sin x = \frac{a}{c}$

$\cos x = \frac{b}{c}$

$\tan x = \frac{a}{b}$



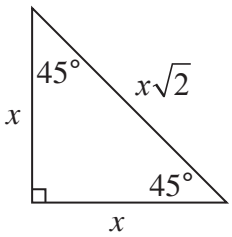

**Permutations**

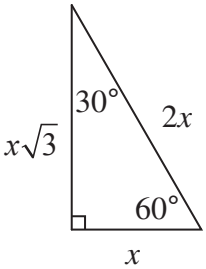
$${}_n\mathrm{P}_k = \frac{n!}{(n-k)!}$$

**Combinations**

$${}_n\mathrm{C}_k = \frac{n!}{k!(n-k)!}$$

**Special Right Triangles**




**Temperature Formulas**

$$°\mathrm{F} = \frac{9}{5}\mathrm{C} + 32$$

$$°\mathrm{C} = \frac{5}{9}(\mathrm{F} - 32)$$