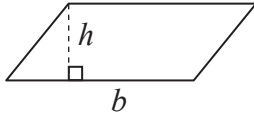# Formula Sheet
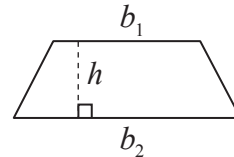
Note to Student: You may use these formulas throughout this entire test. Feel free to use this Formula Sheet as needed during your testing time.
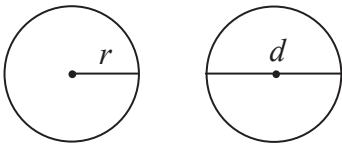
Parallelogram

Area $A = bh$

Trapezoid

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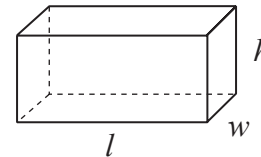
Circle

Circumference $C = 2\pi r$

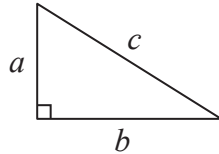$C = \pi d$

Area $A = \pi r^2$

Rectangular Solid

Volume $V = lwh$

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

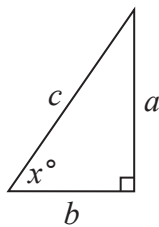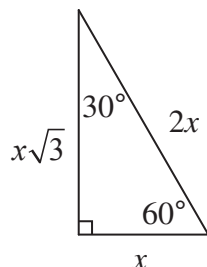**Pythagorean Theorem**

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

Cylinder

Volume
$V = \pi r^2 h$

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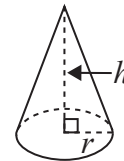
Volume
$V = \frac{1}{3}\pi r^2 h$

Sphere

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

Trigonometric Ratios
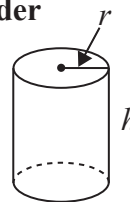
$\sin x = \dfrac{a}{c}$

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

$\tan x = \dfrac{a}{b}$
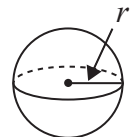
Permutations

$$_nP_k = \frac{n!}{(n-k)!}$$

Combinations

$$_nC_k = \frac{n!}{k!(n-k)!}$$

Special Right Triangles

$45°$ $x\sqrt{2}$ x $45°$ x

$30°$ $2x$ $x\sqrt{3}$ $60°$ x

Temperature Formulas

$$°F = \frac{9}{5}C + 32$$

$$°C = \frac{5}{9}(F - 32)$$