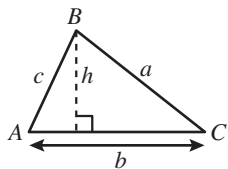


Geometry Formula Sheet

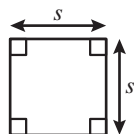
2009 Mathematics Standards of Learning

Geometric Formulas



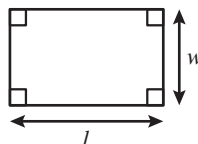
$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}ab \sin C$$



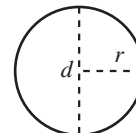
$$p = 4s$$

$$A = s^2$$



$$p = 2l + 2w$$

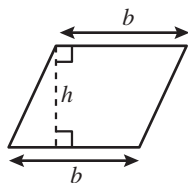
$$A = lw$$



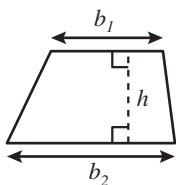
$$C = 2\pi r$$

$$C = \pi d$$

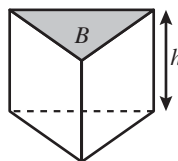
$$A = \pi r^2$$



$$A = bh$$



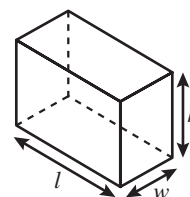
$$A = \frac{1}{2}h(b_1 + b_2)$$



$$V = Bh$$

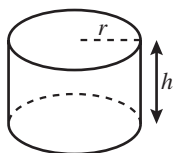
$$L.A. = hp$$

$$S.A. = hp + 2B$$



$$V = lwh$$

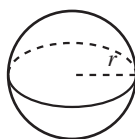
$$S.A. = 2lw + 2lh + 2wh$$



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

$$L.A. = 2\pi rh$$

$$S.A. = 2\pi r^2 + 2\pi rh$$



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

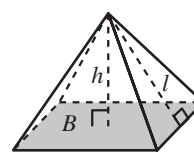
$$S.A. = 4\pi r^2$$



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

$$L.A. = \pi rl$$

$$S.A. = \pi r^2 + \pi rl$$



$$V = \frac{1}{3}Bh$$

$$L.A. = \frac{1}{2}lp$$

$$S.A. = \frac{1}{2}lp + B$$

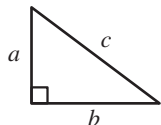
Abbreviations

Area	<i>A</i>
Area of Base	<i>B</i>
Circumference	<i>C</i>
Lateral Area	<i>L.A.</i>
Perimeter	<i>p</i>
Surface Area	<i>S.A.</i>
Volume	<i>V</i>

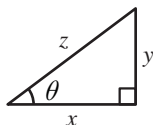
Geometry Formula Sheet

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Geometric Formulas



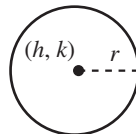
$$a^2 + b^2 = c^2$$



$$\sin \theta = \frac{y}{z}$$

$$\cos \theta = \frac{x}{z}$$

$$\tan \theta = \frac{y}{x}$$



$$(x - h)^2 + (y - k)^2 = r^2$$

Pi

$$\pi \approx 3.14$$

$$\pi \approx \frac{22}{7}$$

Quadratic Formula:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}, \text{ where } ax^2 + bx + c = 0 \text{ and } a \neq 0$$

Geometric Symbols

Example	Meaning
$m\angle A$	measure of angle A
AB	length of line segment AB
\overrightarrow{AB}	ray AB
	right angle
$\overline{AB} \parallel \overline{CD}$	Line AB is parallel to line CD .
$\overline{AB} \perp \overline{CD}$	Line segment AB is perpendicular to line segment CD .
$\angle A \cong \angle B$	Angle A is congruent to angle B .
$\triangle ABC \sim \triangle DEF$	Triangle ABC is similar to triangle DEF .
	Similarly marked segments are congruent.
	Similarly marked angles are congruent.