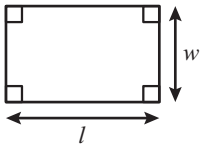
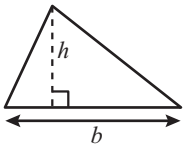
Geometry Formula Sheet
2023 *Mathematics Standards of Learning*
Geometric Formulas

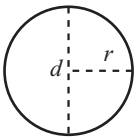


$p = 2l + 2w$

$A = lw$



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

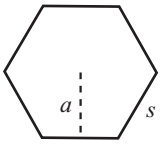


$C = 2\pi r$

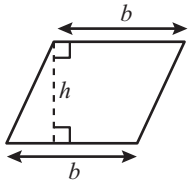
$C = \pi d$

$A = \pi r^2$

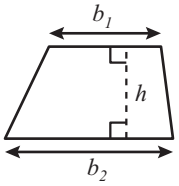
Regular Polygon



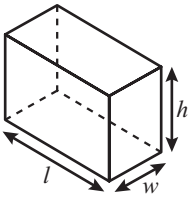
$A = \frac{1}{2}pa$



$A = bh$

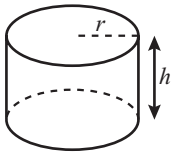


$A = \frac{1}{2}h(b_1 + b_2)$



$V = lwh$

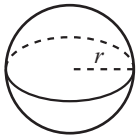
$S.A. = 2lw + 2lh + 2wh$



$V = \pi r^2 h$

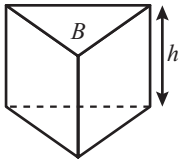
$L.A. = 2\pi rh$

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



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

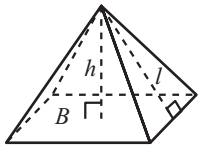
$S.A. = 4\pi r^2$



$V = Bh$

$L.A. = hp$

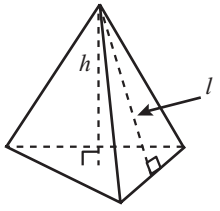
$S.A. = hp + 2B$



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

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

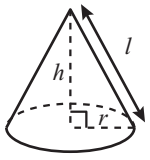
$S.A. = \frac{1}{2}lp + B$



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

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

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



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

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

$L.A. = \pi rl$

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

Abbreviations

Area	A
Area of Base	B
Circumference	C
Lateral Area	$L.A.$
Perimeter	p
Surface Area	$S.A.$
Volume	V

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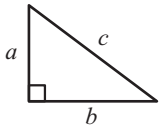
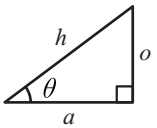


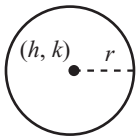
$a^2 + b^2 = c^2$



$\text{Sin } \theta = \frac{o}{h}$

$\text{Cos } \theta = \frac{a}{h}$

$\text{Tan } \theta = \frac{o}{a}$



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

Geometric Symbols

Example	Meaning
$m\angle A$	measure of angle A
AB	length of line segment AB
$\overrightarrow{AB}$	ray AB
$\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$	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.

VA00042747 1154853 1 2 3 4 5 A B C D E Printed in the USA ISD6337