# Geometry Formula Sheet 2016 Mathematics Standards of Learning 

## Geometric Formulas


$A=\frac{1}{2} b h$

$p=2 l+2 w$
$A=l w$

$A=b h$

$A=\frac{1}{2} h\left(b_{1}+b_{2}\right)$

## Regular Hexagon


$A=\frac{3 \sqrt{3}}{2} s^{2}$

$$
A=\frac{1}{2} p a
$$


$V=\pi r^{2} h$
L.A. $=2 \pi r h$
S.A. $=2 \pi r^{2}+2 \pi r h$

$V=\frac{4}{3} \pi r^{3}$
S.A. $=4 \pi r^{2}$


$$
\begin{aligned}
& C=2 \pi r \\
& C=\pi d \\
& A=\pi r^{2}
\end{aligned}
$$

$V=B h$
L.A. $=h p$
S.A. $=h p+2 B$


$V=l w h$

$$
S . A .=2 l w+2 l h+2 w h
$$


$V=\frac{1}{3} B h$
$L . A .=\frac{1}{2} l p$
$S . A .=\frac{1}{2} l p+B$

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## Geometric Formulas



## Quadratic Formula:

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

Geometric Symbols

| Example | Meaning |
| :---: | :--- |
| $m \angle A$ | measure of angle $A$ |
| $A B$ | length of line segment $A B$ |
| $\overrightarrow{A B}$ | ray $A B$ |
| $\overleftrightarrow{A B}-\overleftrightarrow{C D}$ | Line $A B$ is parallel to line $C D$. |
| $\overrightarrow{A B} \perp \overrightarrow{C D}$ | Line segment $A B$ is perpendicular <br> to line segment $C D$. |
| $\angle A \cong \angle B$ | Angle $A$ is congruent to angle $B$. |
| $\triangle A B C \sim \triangle D E F$ | Triangle $A B C$ is similar to <br> triangle $D E F$. |

Abbreviations

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

