

## Grade 11 Formula Sheet

**You may use the following formulas to solve problems on this test.**

Pythagorean Theorem	$a^2 + b^2 = c^2$
Distance formula	$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
Quadratic formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Trigonometric Relations	$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}} \quad \cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$ $\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$
$A = \pi r^2$ $C = \pi d$	<p><math>A</math> = area  <math>C</math> = circumference  <math>d</math> = diameter  <math>r</math> = radius</p>
$SA = ph + 2B$ $SA = \pi r l + \pi r^2$ $SA = 4\pi r^2$	<p><math>SA</math> = surface area  <math>B</math> = area of base  <math>h</math> = height  <math>p</math> = perimeter  <math>r</math> = radius  <math>l</math> = slant height</p>
$V = Bh$ $V = \frac{1}{3}Bh$ $V = \frac{4}{3}\pi r^3$	<p><math>V</math> = volume  <math>B</math> = area of base  <math>h</math> = height  <math>r</math> = radius</p>