
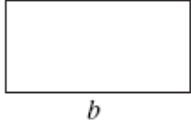
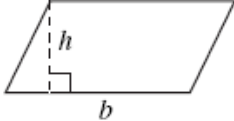
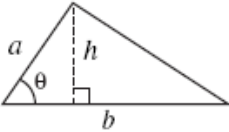
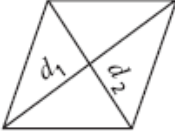
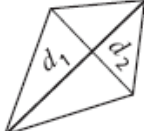
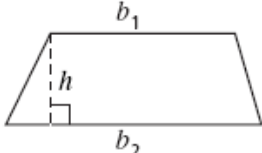
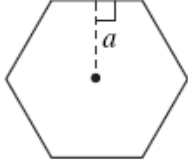

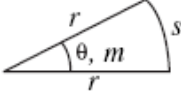
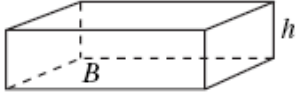
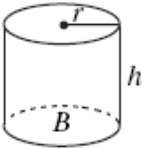
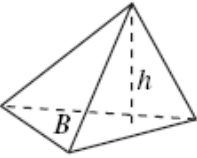
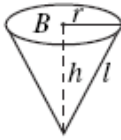
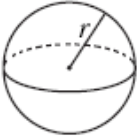
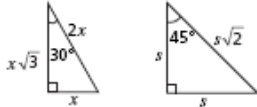


GRADE 11 FORMULA SHEET

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

Area of a Square	
$A = s^2$	
Area of a Rectangle or a Parallelogram	
$A = bh$	 
Area of a Triangle	
$A = \frac{1}{2}bh$ $A = \frac{1}{2}ab \sin \theta$	
Area of a Rhombus or a Kite	
$A = \frac{1}{2}d_1d_2$	 
Area of a Trapezoid	
$A = \frac{1}{2}h(b_1 + b_2)$	
Area of a Regular Polygon	
$A = \frac{1}{2}Pa$	
<p>where P is the perimeter and a is the apothem.</p>	

Area of a Circle and Circumference of a Circle		
$A = \pi r^2$ $C = 2\pi r$		
Length of an Arc of a Circle and Area of a Sector of a Circle		
$s = \frac{m}{360} C$ $s = r\theta$	$A_{\text{sector}} = \frac{m}{360} A_{\text{circle}}$ $A = \frac{1}{2} r^2 \theta$	$m = \text{degrees}$ $\theta = \text{radians}$ 
Volume of a Prism or a Cylinder		
$V = Bh$ where B is the area of the base		
Volume of a Pyramid or a Cone		
$V = \frac{1}{3} Bh$ where B is the area of the base		
Volume of a Sphere		
$V = \frac{4}{3} \pi r^3$		
Pythagorean Theorem	Distance Formula	Quadratic Formula
$a^2 + b^2 = c^2$	$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Direct Variation		Indirect Variation
$y = kx$		$y = \frac{k}{x}$
Combination of n Things Taken r at a Time		Permutation of n Things Taken r at a Time
${}^n C_r = \binom{n}{r} = \frac{n(n-1)(n-2)\dots}{r!(n-r)!} = \frac{n!}{r!(n-r)!}$		${}^n P_r = \frac{n!}{(n-r)!}$
Special Triangles	Trigonometric Relations	
	$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$ $\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$	$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}, \tan \theta = \frac{\sin \theta}{\cos \theta}$ $\sin^2 \theta + \cos^2 \theta = 1$