

# Mathematics Reference Sheet

## Volume

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

Pyramid:  $V = \frac{1}{3} B h$

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

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

$V$  = volume  
 $r$  = radius  
 $h$  = height  
 $B$  = area of base

## Coordinate Geometry

Slope:  $m = \frac{y_2 - y_1}{x_2 - x_1}, x_2 \neq x_1$

## Special Factoring

$$a^2 - b^2 = (a - b)(a + b)$$

$$a^2 + 2ab + b^2 = (a + b)^2$$

$$a^2 - 2ab + b^2 = (a - b)^2$$

## Quadratic Formula

For  $ax^2 + bx + c = 0$ ,

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

## Interest

Simple interest Formula:

$$I = prt$$

$p$  = principal

$r$  = annual interest rate

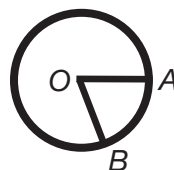
$t$  = time in years

$I$  = Interest

## Pythagorean Theorem

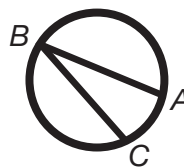
$$a^2 + b^2 = c^2$$

## Central Angle



$$m\angle AOB = m\widehat{AB}$$

## Inscribed Angle



$$m\angle ABC = \frac{1}{2} m\widehat{AC}$$

DATA RECOGNITION

**DRC**  
CORPORATION

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