

# Ohio Grade 8 Mathematics Achievement Assessment Reference Sheet

Information that may be needed to solve problems on the Mathematics Test:

## Area Formulas

parallelogram  $A = bh$

rectangle  $A = lw$

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

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

## Circle Formulas

$C = 2\pi r$   
 $A = \pi r^2$

$\pi \approx 3.14$  or  $\frac{22}{7}$

## Distance Formula

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

## Volume Formulas

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

cylinder  $V = \pi r^2 h$

pyramid  $V = \frac{1}{3} Bh$   
( $B =$  area of base)

rectangular prism  $V = lwh$

right prism  $V = Bh$   
( $B =$  area of base)

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