

# Grade 8 Mathematics Reference Sheet

## CONVERSIONS

1 yard = 3 feet  
1 mile = 5,280 feet

1 cup = 8 fluid ounces  
1 pint = 2 cups  
1 quart = 2 pints  
1 gallon = 4 quarts

1 pound = 16 ounces  
1 ton = 2,000 pounds

## CONVERSIONS ACROSS MEASUREMENT SYSTEMS

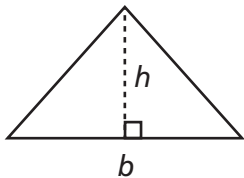
1 inch = 2.54 centimeters  
1 meter = 39.37 inches  
1 mile = 1.609 kilometers  
1 kilometer = 0.6214 mile

1 gallon = 3.785 liters  
1 liter = 0.2642 gallon

1 pound = 0.454 kilogram  
1 kilogram = 2.2 pounds

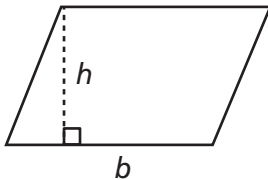
## FORMULAS AND FIGURES

### Triangle



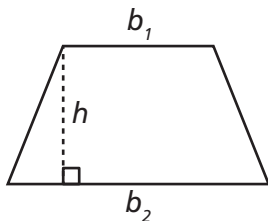
$$A = \frac{1}{2}bh$$

### Parallelogram



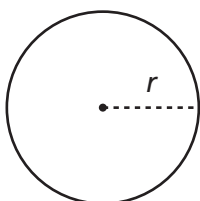
$$A = bh$$

### Trapezoid



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

### Circle

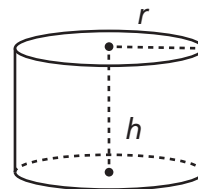


$$C = 2\pi r$$
$$C = \pi d$$
$$A = \pi r^2$$

### General Prism

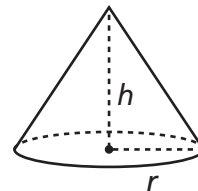
$$V = Bh$$

### Right Cylinder



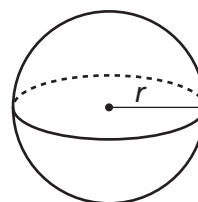
$$V = \pi r^2 h$$

### Right Cone



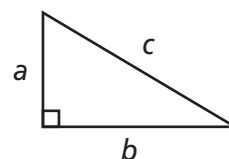
$$V = \frac{1}{3}\pi r^2 h$$

### Sphere



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

### Pythagorean Theorem



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