

# Applied Math Formula Sheet

## Distance

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5,280 feet

1 mile  $\approx$  1.61 kilometers

1 inch = 2.54 centimeters

1 foot = 0.3048 meters

1 meter = 1,000 millimeters

1 meter = 100 centimeters

1 kilometer = 1,000 meters

## Area

1 square foot = 144 square inches

1 square yard = 9 square feet

1 acre = 43,560 square feet

## Volume

1 cup = 8 fluid ounces

1 quart = 4 cups

1 gallon = 4 quarts

1 gallon = 231 cubic inches

1 liter  $\approx$  0.264 gallons

1 cubic foot = 1,728 cubic inches

1 cubic yard = 27 cubic feet

1 board foot = 1 inch by 12 inches by 12 inches

## Weight/Mass

1 ounce  $\approx$  28.350 grams

1 pound = 16 ounces

1 pound  $\approx$  453.592 grams

1 milligram = 0.001 grams

1 kilogram = 1,000 grams

1 kilogram  $\approx$  2.2 pounds

1 ton = 2,000 pounds

## Rectangle

perimeter =  $2(\text{length} + \text{width})$

area =  $\text{length} \times \text{width}$

## Rectangular Solid (Box)

volume =  $\text{length} \times \text{width} \times \text{height}$

## Cube

volume =  $(\text{length of side})^3$

## Triangle

sum of angles =  $180^\circ$

area =  $\frac{1}{2}(\text{base} \times \text{height})$

## Circle

number of degrees in a circle =  $360^\circ$

circumference  $\approx 3.14 \times \text{diameter}$

area  $\approx 3.14 \times (\text{radius})^2$

## Cylinder

volume  $\approx 3.14 \times (\text{radius})^2 \times \text{height}$

## Cone

volume  $\approx \frac{3.14 \times (\text{radius})^2 \times \text{height}}{3}$

## Sphere (Ball)

volume  $\approx \frac{4}{3} \times 3.14 \times (\text{radius})^3$

## Electricity

1 kilowatt-hour = 1,000 watt-hours

amps = watts  $\div$  volts

## Temperature

$^\circ\text{C} = \frac{5}{9}(\text{°F} - 32)$

$^\circ\text{F} = \frac{9}{5}(\text{°C}) + 32$

**NOTE:** Problems on the ACT WorkKeys *Applied Math* assessment should be worked using the formulas and conversions on this formula sheet.