

## Grade 8 FAST Mathematics Reference Sheet

### Conversions within a System of Measure

#### Customary Conversions

1 foot = 12 inches  
 1 yard = 3 feet  
 1 mile = 5,280 feet  
 1 mile = 1,760 yards

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

#### Metric Conversions

1 meter = 100 centimeters  
 1 meter = 1000 millimeters  
 1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams  
 1 kilogram = 1000 grams

#### Time Conversions

1 minute = 60 seconds  
 1 hour = 60 minutes  
 1 day = 24 hours  
 1 week = 7 days  
 1 year = 365 days  
 1 year = 52 weeks

### Conversions between Systems of Measure

#### Customary to Metric Conversion Approximations

1 inch = 2.54 centimeters  
 1 foot = 0.305 meters  
 1 mile = 1.61 kilometers

1 cup = 0.24 liters  
 1 gallon = 3.785 liters  
 1 ounce = 28.35 grams  
 1 pound = 0.454 kilograms

#### Metric to Customary Conversion Approximations

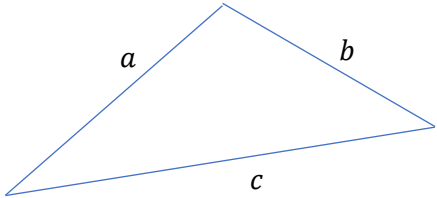
1 centimeter = 0.39 inches  
 1 meter = 3.28 feet  
 1 kilometer = 0.62 miles

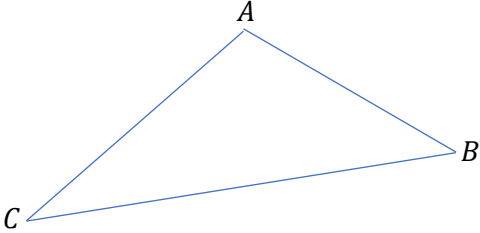
1 liter = 4.23 cups  
 1 liter = 0.264 gallons  
 1 gram = 0.0352 ounces  
 1 kilogram = 2.204 pounds

#### Formula

Slope Formula
$m = \frac{y_2 - y_1}{x_2 - x_1}$ <p>where <math>m</math> = slope</p>

**Grade 8 FAST Mathematics Reference Sheet****Theorems**

<b>Triangle Inequality Theorem</b>	
	$a + b > c$ $a + c > b$ $b + c > a$

<b>Triangle Sum Theorem</b>	
	$m\angle A + m\angle B + m\angle C = 180^\circ$