

Geometry, Measurement and Finance 10 – Conversions & Formulas

IMPORTANT CONVERSIONS...

SI Length		Imperial Length
1 cm = 10 mm	↔	1 ft. = 12 in.
1 m. = 100 cm		1 yd = 3 ft.
1 km = 1000 m		1 mi. = 1760 yd
1 m = 1.0936 yd		
		1 mi. = 1.6093 km
		1 in. = 2.54 cm

SI Capacity: 1 L = 1000 mL 1 kL = 1000 L
SI Volume: 1 cm ³ = 1 mL

SI (metric)...		Imperial...
1 g = 1000 mg 1 kg = 1000 g 1 t = 1000 kg	↔	1 lb = 16 oz 1 tn = 2000 lb
1 kg = 2.2 lbs		

TEMPERATURE CONVERSIONS...

$$C = \frac{5}{9}(F - 32)$$

$$F = \frac{9}{5}C + 32$$

CONVERTING COMMON COOKING UNITS

Imperial	SI
¼ teaspoon	1.25 mL
½ teaspoon	2.5 mL
1 teaspoon	5 mL
1 tablespoon (3 teaspoons)	15 mL
1 cup	250 mL
1 pint	568.2614 mL
1 quart (2 pt)	1.1365 L
1 gallon (4 qt)	4.5461 L

CONVERTING US IMPERIAL TO SI UNITS

US Imperial	SI
1 fl oz	29.5735 mL
1 pt = 16 fl oz	473.176 mL or 0.473 L
1 qt = 2 pt	946.352 mL or 0.946 L
1 gal = 4 qt	3785.4 mL or 3.785 L

SURFACE AREA FORMULAS...

$$SA_{\text{prism}} = 2 \times A_{\text{base}} + \text{Area of the rectangular lateral faces}$$

$$SA_{\text{pyramid}} = A_{\text{base}} + \text{Area of the triangular lateral faces}$$

$$SA_{\text{cylinder}} = 2\pi r^2 + 2\pi rh$$

$$SA_{\text{cone}} = \pi r^2 + \pi rs$$

$$SA_{\text{sphere}} = 4\pi r^2$$

Pythagorean Theorem...

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

VOLUME FORMULAS...

$$V_{\text{prism}} = A_{\text{base}} \times \text{height}$$

$$V_{\text{pyramid}} = \frac{A_{\text{base}} \times \text{height}}{3}$$

$$V_{\text{cylinder}} = \pi r^2 h$$

$$V_{\text{cone}} = \frac{\pi r^2 h}{3}$$

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