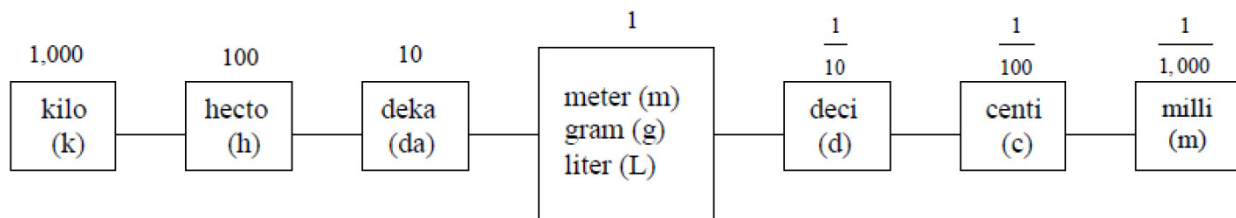


MAT 099 Formula Sheet – may be used on exams

**Metric System**



Prefix	Symbol	Meaning
kilo	k	1,000 (one thousand)
hecto	h	100 (one hundred)
deka	da	10 (ten)

Basic unit of measure such as meter (m), gram (g), or liter (L) 1 (one)

deci	d	1/10 (one tenth)
centi	c	1/100 (one hundredth)
milli	m	1/1,000 (one thousandth)
micro	mc	1/1,000,000 (one millionth)

**AMERICAN AND METRIC CONVERSION FACTS**

**Length**

1 in. = 2.54 cm	1 m = 39.370 in
1 ft ≈ 0.305 m	1 m ≈ 3.281 ft
1 yd ≈ 0.914 m	1 m ≈ 1.094 yd
1 mi ≈ 1.609 km	1 km ≈ 0.621 mi

**Weight and Mass**

1 kg ≈ 2.20 lb	1 lb ≈ 0.45 kg
1 g ≈ 0.035 oz	1 oz ≈ 28.35 g

**Capacity**

1 fl oz ≈ 29.57 mL	1 L ≈ 33.81 fl oz
1 c ≈ 237 mL	1 L ≈ 4.23 c
1 pt ≈ 0.47 L	1 L ≈ 2.11 pt
1 qt ≈ 0.95 L	1 L ≈ 1.06 qt
1 gal ≈ 3.79 L	1 L ≈ 0.26 gal
1 tsp = 5 ml	

**TEMPERATURE CONVERSION FORMULAS**

Celsius to Fahrenheit:  $F = \frac{9}{5}C + 32$

Fahrenheit to Celsius:  $C = \frac{5}{9}(F - 32)$

**Other Metric Equivalents**

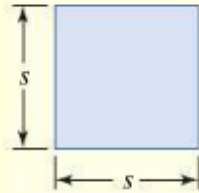
1 metric ton = 1000 kilograms  
 1 microgram = 1 mcg = 0.000001 g  
 1,000,000 mcg = 1 g

**Geometric Formulas**

**Figure**

**Formulas**

**Square**



**Perimeter:**  $P = 4s$

**Area:**  $A = s^2$

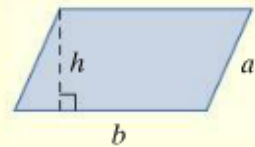
**Rectangle**



**Perimeter:**  $P = 2l + 2w$

**Area:**  $A = lw$

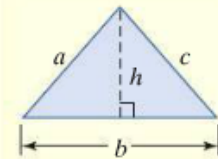
**Parallelogram**



**Perimeter:**  $P = 2a + 2b$

**Area:**  $A = bh$

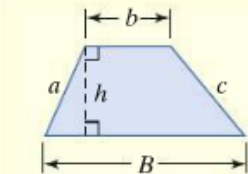
**Triangle**



**Perimeter:**  $P = a + b + c$

**Area:**  $A = \frac{1}{2}bh$

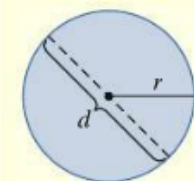
**Trapezoid**



**Perimeter:**  $P = a + b + c + B$

**Area:**  $A = \frac{1}{2}h(b + B)$

**Circle**



**Circumference:**  $C = 2\pi r = \pi d$

**Area:**  $A = \pi r^2$