

# Math351

## Practice Exam #04

1. Make the following conversions by multiplying by the appropriate conversion factor.

**Round you final answer to the nearest thousandth.**

**Note:** 12 inches = 1 foot;    3 feet = 1 yard;    5280 feet = 1 mile;    2.54 cm = 1 inch

a) 500,000 *inches* to miles 7.891 miles

b) 15 *cm* to inches 5.906 in

c) 10,000 *yd* to miles 5.682 miles

d) 35,000 *sec* to hours 9.722 hours

e) 2 *days* to sec 172,800.000 sec

2. Make the following conversions by multiplying by the appropriate conversion factor.

**Round your answers to the nearest thousandths.**

**Note:** 12 inches = 1 foot; 3 feet = 1 yard; 5280 feet = 1 mile; 2.54 cm = 1 inch

a)  $12 \frac{\text{mi}}{\text{hr}}$  to  $\frac{\text{cm}}{\text{sec}}$  536.448 cm/sec

b)  $2,000 \frac{\text{cm}}{\text{sec}}$  to  $\frac{\text{mi}}{\text{hr}}$  44.739 mi/hr

c)  $10 \text{ yd}^2$  to  $\text{cm}^2$  83,612.736  $\text{cm}^2$

d)  $750 \text{ in}^3$  to  $\text{yd}^3$  0.016  $\text{yd}^3$

e)  $10 \text{ yd}^3$  to  $\text{in}^3$  466,560.000  $\text{in}^3$

3. Make the following conversions by multiplying by the appropriate conversion factor.

**Round your answers to the nearest thousandths. See attached conversion handout!**

a) 10 kg to ounces 

352.000 oz	or	353.357 oz
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b) 12 lbs to grams 

5454.545 g	or	5433.600 g
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c) 437 cc to liters 

0.437 liter
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d) 15 L to cups 

63.600 cups	or	63.325 cups
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e) 500  $in^3$  to milliliters 

8,195.000 ml
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4. Use the following conversions to convert 600 Pebbles to Diamonds.

13 crystals = 6 rocks; 8 gems = 26 crystals; 24 pebbles = 3 rocks; 20 gems = 2 diamonds

5 Diamonds

5. A family with a swimming pool puts a chain link fence around the pool. The fence forms a rectangle 14 yards wide and 22 yards long. If the chain-link fence sells for \$2.50 per foot, how much will it cost to fence all four sides of the pool?

\$540.00

6. In horse racing, 1 furlong = 220 yards. How many furlongs are in 1 mile?

8 furlongs

7. A 5.0 liter engine has a displacement of how many cubic inches? **See attached conversion handout!**

305.064 in<sup>3</sup>

8. Convert  $120^{\circ} C$  to degrees Fahrenheit. **Use the given formula on the attached conversion handout!**

$248^{\circ} F$

9. Convert  $100^{\circ} F$  to degrees Celsius. **Use the given formula on the attached conversion handout! Round to the nearest tenth.**

$37.8^{\circ} C$

10. How many seconds are in 1.8 hours?

6,480 sec

11. 65 miles per hour is equivalent to how many kilometers per hour? **See attached conversion handout! Round to the nearest tenth.**

104.6 km/hr

# Conversions Handout

12 inches = 1 foot;    3 feet = 1 yard;    5280 feet = 1 mile;    2.54 cm = 1 inch

Kilometers to meters:    1 km = 1,000 m

Meters to millimeters:    1 m = 1000 mm

Meters to centimeters:    1 m = 100 cm

Meters to decimeters:    1 m = 10 dm

Centimeters to inches:    2.54 cm = 1 in

Milliliters to cubic-inches:    16.39 ml = 1 in<sup>3</sup>

Milliliters to cubic-centimeters:    1 ml = 1 cc (1cm<sup>3</sup>)

Milliliters to liters:    1,000 ml = 1 liter

Microliters to liters: 1,000,000  $\mu$ l = 1 liter

Quarts to liters:    1.06 qt = 1 liter

Liters to gallons:    3.79 liters = 1 gal

Cups to ounces:    1 cup = 8 oz

Cups to pints:    2 cups = 1 pint

Pints to quarts:    2 pints = 1 quart

Quarts to Gallons:    4 quarts = 1 gal

Pounds to ounces:    1 lb = 16 oz

Tons to pounds:    1 T = 2,000 lb

Grams to ounces:    28.3 g = 1 oz

Grams to kilograms:    1000 g = 1 kg

Pounds to kilograms:    2.20 lb = 1 kg

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

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