

**Math 1 – Unit Conversion  
Assignment#24**

Name: \_\_\_\_\_ Per: \_\_\_\_

**Use dimensional analysis to convert the measurements.**

1) Convert 8 milliliters to fluid ounces.

Use  $1\text{mL} \approx 0.034\text{fl oz}$ .

2) Convert 12 kilograms to pounds.

Use  $1\text{kg} \approx 2.2\text{ lb}$ .

3) Convert 950 US dollars to British pounds sterling. Use 1 US dollar = 0.62 British pound sterling.

4) The dwarf sea horse *Hippocampus zosterae* swims at a rate of 52.68 feet per hour. Convert this speed to inches per minute.

**Use dimensional analysis to determine which rate is greater.**

5) Tortoise A walks 52.0 feet per hour and tortoise B walks 12 inches per minute. Which tortoise travels faster? Explain.

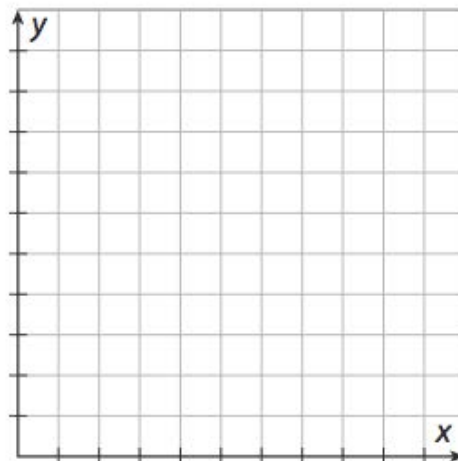
6) The pitcher for the Robins throws a baseball at 90.0 miles per hour. The pitcher on the Bluebirds throws a baseball 121 feet per second. Which pitcher throws a baseball faster? Explain.

7) For a science experiment Marcia dissolved 1.0 kilogram of salt in 3.0 liters of water. For a different experiment, Bobby dissolved 2.0 pounds of salt in 7.0 pints of water. Which person made a more concentrated salt solution? Explain. Use  $1\text{L} = 2.11$  pints. Round your answer to the nearest hundredth.

8) Will a stand that can hold up to 40 pounds support a 21-kilogram television? Explain. Use  $2.2\text{ lb.} = 1\text{ kg.}$

**Find the unit rate, create scale on the x- and y-axes, and then graph the function.**

9) Brianna bought a total of 8 notebooks and got 16 free pens.



10) Mason sold 10 wristbands and made a total of 5 dollars.

