Name _____

Date _____

Class Period _____

Dimensional Analysis Worksheet

Set up and solve the following using dimensional analysis.

1 mile = 5,280 ft
1 inch = 2.54 cm
3 feet = 1 yard
454 g = 1lb
946 mL = 1 qt
4 qt = 1 gal

Don't forget: $\frac{\text{What you want}}{\text{What you've got}}$

1) 5,400 inches to miles

2) 16 weeks to seconds

3) 54 yards to mm

4) 36 cm/sec to mph

5) 1.09 g/mL to lbs/gal

6) 19 inches to feet

7) 840 inches to cm

8) 4.22 g/cm to lbs./ft

9) 32 ft/sec to meters/min

10) Write, and then solve your own dimensional analysis problem. Be creative!

11) You have the Heebie-Geebies. Your grandmother sends you a remedy for the Heebie-Geebies with the following instructions: "Take 1 drop per 10 lbs. of body weight per day divided into 4 doses until the Heebie-Geebies are gone." How many drops do you take per dose??

12) You're throwing a pizza party for 15 people and figure that each person will eat 4 slices. You call up the pizza place and larn that each pizza will cost you $14.78 and it will be cut into 12 slices. How much is the pizza going to cost you? You only have $70. Will you have enough money?

13) Every three times I clean my bedroom, my mother makes me an apple pie. I cleaned my bedroom 9 times. How many apple pies does she owe me? (What?! Your mother doesn't reward you for cleaning your bedroom? Aren't there child labor laws? To make up for that injustice, you may have this very easy problem.)

14) In my chemistry class, 28 students are each given 3 pens. If there are 8 pens in one package, priced at $1.88 per package, what is the total cost of giving away pens?

15) Convert 5.70 Kilograms to milligrams. Show your work!

16) You find 13,406,190 pennies. How many dollars did you actually find? If each penny weighs 4 grams, how much did all that loot weigh in lbs.?
(2.2 lbs = 1 Kilogram

17) Assume a movie ticket costs $9, how many movie tickets could you buy with the pennies you found in #8?