DIMENSIONAL ANALYSIS EXTRA PRACTICE

1. What is the first thing that you do in a dimensional analysis problem?

2. Does it make any difference if you use $69 per 3 books or $23 per one book?

3. How much are four video tapes that sell at $6.67 for 3 tapes?

4. A recipe uses 1 cup of flour for every 3 eggs. The eggs are increased to 5. How much flour should be used?

5. The density of a certain gas is 1.40 g per liter. Find the mass of 3.05 liters of the gas.

6. A sewing machine is adjusted to sew 35 stitches per 3 inches. How many stitches are needed to sew 136 inches?

7. Sylvia weighs 102 pounds. What is her weight in kg if a kg is equal to 2.2 pounds?

8. How many tablespoons are there in four quarts of ice cream if there are two tablespoons to an ounce and 32 ounces to a quart?

9. Pat can hammer in 16 nails per minute. How many minutes will it take Pat to nail 100 boards if each board needs 6 nails?

10. If apples are 4 for $.55 and Marie buys 4 bushels of apples in which there are 60 apples per bushel: what is the cost in dollars?

11. If there are 100 mg of Vitamin C per pill and 500 pills to a bottle, how many mg of Vitamin C are there per 3 cases of bottles (12 bottles to a case)?

12. Every student in Mrs. Hanglider’s class needs three pink shirts. T-shirts are sold 2 for $17.99. What is the cost to 30 students for the shirts needed?

13. How many ounces of aspirin are in a dosage of two tablets? Each tablet has 5 grains of aspirin in it. There are 0.065 grams to a grain and 28.3 grams to an ounce.

14. Convert 55 miles per hour to feet per second. There are 1760 yards to a mile.

15. If 5 apples cost $.95 and each apple has 4 worms in it, how much are you paying per worm?

16. There are 14 oinks per pig and 18 grunts per pig. Each grunt requires 7 oops. Every oops need 2 umps. There are 9 slurps per ump. How many slurps are there per oink?

17. If a faucet drips 6 drops per second, how many drops will be lost in two years?

18. A quart of Kool-Aid uses 1 cup of sugar. If Peter wants to make 8 quarts, how many cups of sugar will he need?

19. How many miles will 300 gallons take a car that get s 20 miles to the gallon?

20. The space shuttle travels at 17,500 miles/hour, how many meters/second is this?

There are 39.37 inches in a meter, and 5280 feet/mile.

21. In the above question, how many miles per second is this?

22. Denver is 500 miles from Lincoln. How many seconds does it take for the shuttle to travel to Denver? (see question #20)