**Test Questions, Ch. 7 ANSWERS**

**top score 18. Most did very poorly, getting almost none on 17,18, 19, 20. So I made those bonus questions.**

The test lasts 40 minutes. Show your work. You may not use a calculator.

1. How many feet are in a yard? 3

2. How many teaspoons are in a tablespoon? 3 3. What is the name for 1,000 meters? A kilometer

4. How many quarts are in one cup? 1/2 5. How many grams are in a kilogram?1000

6. How many cm are in a meter? 100 7. What is the name for one thousandth of a millimeter? 1 micron

8. How many feet are in a mile? 5,280

9. How long is 1 km in miles? \_.\_ 0.6 10. How many feet are in 1 meter? \_ 3

 11. How many liters are in one quart? \_ 1

12. What is a temperature of 5 degrees Celsius, in Fahrenheit?

1.8\*5 + 32 = 41

13. What is a temperature of -10 degrees Fahrenheit, in Celsius?

 (5/9)(-10-32) =- (5/9)\*42,about - .55\*42, -23C.

14. George has produced 17 gallons of special red paint. He plans to give away 10 gallons in pint cans and the rest in quart cans. How many cans of each type does he need?

 10\*2\*4 = 80 pint cans and 7\*4 = 28 quart cans.

15. If a flask of chemical contains 810ml, how many liters of chemical are in it?

 0.81L

16. If the street is 0.024km away from here, how far away is it in meters? 24m.

For the questions below, you can use the rough approximations I told you to memorize.

17. Mrs. Jones wants to have 100 grams of Brie for each of the 20 people at her party. How many pounds is that in total?

 100g\*20 = 2,000g, which is 2 kg, and that is 4lb.

18. Each glass of milk holds 10 ounces and there are 8 children at the nursery. How big must the jug be in liters to hold the milk? 80 ounces is 80/8 = 10 cups, or 5 pints, or 2.5 quarts. Thus, 2.5 liters.

19. A cheetah can run 120km/hour. How many feet per second does it travel?

 That is 2km/minute. It is 2,000 meters per minute, or 2000\*3 feet per minute, 6,000 feet per minute, or 6000ft/60sec = 100 feet per second.

20. A 4.5kg bar of English Cadbury’s chocolate costs $108.00. How much does it cost per ounce?

 4.5 kg is about 9 pounds. $108/9lb comes to $12/lb. Divide by 16 to get $12/16oz = $.75/oz.

**Bonus question.** Twenty years ago, a glacier was 2,300 feet long. Now it is 2,200 feet long. If it now starts to melt only half as fast, in how many years will it be 1,750 feet long?

 It took 20 years to melt 100 feet, which is 5 feet/year. Half that is 2.5ft/year. We want it to melt 550 more feet. 2.5\*X = 550. X = 550/2.5 = 1100/5 = 220 years.