Metrics and Measuring

- 1. The metric units of length, volume and mass are all derived from
 - a. the weight of water.
 - b. the meter.
 - c. the distance to the king's nose.
 - d. They are not related.
- 2. The purpose of using a standard system of units like the metric system is
 - a. to be able to reproduce results.
 - b. make things sound "scientific".
 - c. that it makes the math easier.
 - d. that the metric system came from France!
- 3. 100 mL are equal to
 - a. 1 cm3
 - b. 10 cm3
 - c. 100 cm3
 - d. 1000 cm3
- 4. 10.0 m=
- a. 10,000 mm, 1000 cm, 0.01 Km
- b. 100,000 mm, 1000 cm, 1 Km
- c. 100,000 mm, 1000 cm, 0.1 Km
- d. 10,000 mm, 10,000 cm, 0.1 Km
- 5. 50 Kg=
- a. 50,000,000 mg
- b. 5,000,000 cg
- c. 50,000 a
- d. all of the above
- 6. $65 \, \text{mL}$ =
- a. 6.5 cL, 0.65 L, 0.000 065 KL
- b. 650 cL, 65,000 L, 65,000,000 KL
- c. 6.5 cL, 0.065 L, 0.000 065 KL
- d. 6.5 cL, 0.065 L, 0.000 65 KL
- 7. What is the volume of a box 300. cm X 2.50 m X 6.00 m.
 - a. 45.0 m³
 - b. $4.50 \times 10^7 \text{ cm}^3$
 - c. both a and b
 - d. neither a nor b

- 8. Two people measure the mass of a rock. One person gets a mass of 27.4 g. The other person, using the same exact balance, gets a mass of 27.3 g. Which measurement is right?
 - a. They're both right because the balance is not accurate.
 - b. They're both right because the last digit in any measure is an estimate.
 - c. They are both right because 0.1 grams is really small.
 - d. They need to remeasure the rock until they get the same answer.
- 9. Would you rather have a centidollar or a kilodollar?
 - a. The c\$, it is worth \$100 while the K\$ is worth \$0.001.
 - b. The K\$, it is worth \$100 while the c\$ is worth \$0.001.
 - c. The c\$, it is worth \$0.01 while the K\$ is worth \$0.001.
 - d. The K\$, it is worth \$1000 while the c\$ is worth \$0.01.
- 10. How many Kg is a 130 lb person (1 kg = 2.2 lbs)?
 - a. 286 Kg
 - b. 59.1 Kg
 - c. 130 Kg
 - d. 579 Kg
- 11. 12.00 seconds is how many years?
 - a. 378,432,000
 - b. 31,536,000
 - c. 0.000 000 381
 - d. 0.000 004 57
- 12. How many centimeters is 3.5 miles (1 mile = 1.6 km)?
 - a. 5.6
 - b. 5600
 - c. 560.000
 - d. 5,600,000
- 13. If a car is traveling 60 miles per hour, it is also going how many meters per second?
 - a. 27
 - b. 1600
 - c. 96
 - d. 1.6

Use the following for questions #14-17.

1 rock = 4 stones

1 stone = 7 pebbles

1 pebble = 8 grains

14. 120 rocks is

- a. 3360 pebbles.
- b. 4.29 pebbles.
- c. 28 pebbles.
- d. 0.0357 pebbles.

15. One stone is

- a. 0.0179 grains.
- b. 56.0 grains.
- c. 224 grains.
- d. 8.00 grains.

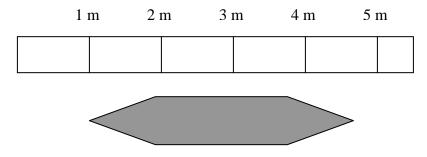
16. 10,000 grains are

- a. 0.287 rocks.
- b. 44.6 rocks.
- c. 2,224,000 rocks.
- d. 224 rocks.

17. 1/2 a rock is

- a. 0.00223 grains.
- b. 0.00446 grains.
- c. 224 grains.
- d. 112 grains.

18. What is the length of the object below?



- a. 4.5 m
- b. 4.6 m
- c. 3.7 m
- d. 3.75 m
- e. 3.70 m