## **Units Practice**

- 1. A bakery is cutting chocolate chips from large slabs of chocolate weighing 20 pounds. At most, how many 2-ounce chips can be produced from one slab? (1 pound = 16 ounces) (no calculator)
  - a. 10
  - b. 80
  - c. 160
  - d. 320
- 2. It is commonly known that one human year is equivalent to seven dog years. If Molly got her dog as a puppy when she was 5 and a half years old, and now Molly is 7 years old, how old is Molly's dog in dog years? (no calculator)
  - a. 1.5
  - b. 7
  - c. 10.5
  - d. 14
- 3. During swim practice, Jenny is able to hold her breath for 9 seconds. From previous competitions, she knows that she swims at a rate of 2 miles per hour. How far is Jenny able to swim in one breath? *(calculator)* 
  - a. 26.4 feet
  - b. 14.67 feet
  - c. 13.2 feet
  - d. 9.3 feet
- 4. A bakery usually sells sourdough bread for \$4 per loaf. The bakery is currently having a special on sourdough which advertises 8 loaves for \$26 dollars. How much cheaper are the loaves on the special compared to the normal price per loaf. (no calculator)
  - a. \$0.50
  - b. \$0.75
  - c. \$1.25
  - d. \$3.25
- 5. Timmy is comparing the different cereal brands his local grocery store sells. He then records the price and the size of each cereal box in a table, as shown below. Based on the information in the table, which cereal has the lowest cost per ounce? (calculator)

Cereal	Cost in dollars	Size in ounces
Honey Bits	\$3.99	3.8
Fruity Dots	\$4.19	4.5
Berry Wellness	\$4.89	5.0
Corn Delight	\$3.79	3.7

- a. Honey Bits
- b. Fruity Dots
- c. Berry Wellness
- d. Corn Delight

- 6. The "Calorie" we use to describe our food is written with a capital C to distinguish it from a calorie in chemistry. 1 Calorie is actually equal to a kilocalorie (1000 calories). A Joule (J) is the unit used to measure energy. If there are 4.184 Joules in a calorie, and 1000 calories in a Calorie, how many Joules are there in a 110 Calorie banana? (calculator)
  - a.  $4.6*10^{-2}$
  - b.  $4.6*10^2$
  - c.  $4.1*10^5$
  - d. 4.6\*10<sup>5</sup>
- 7. Ancient Egyptians used the palm as a unit of measurement for length. Three palms are approximately equal to 22.5 centimeters. There are approximately 30 centimeters in 1 foot. Based on these relationships, 7.5 palm is equal to approximately how many feet, to the nearest hundredth? (calculator)
  - a. 1.88
  - b. 2.50
  - c. 5.63
  - d. 18.75
- 8. If one molecule of methane is made up of one atom of carbon and four atoms of hydrogen, how many atoms of hydrogen are needed to make 172 molecules of methane? (no calculator)
  - a. 43
  - b. 86
  - c. 172
  - d. 688
- 9. A wooden sphere has a radius of 3 centimeters. The sphere has a density of 0.85 grams per cubic centimeter. What is the approximate mass of the sphere, in grams? (Density is mass per unit

volume, volume of a sphere is  $v = \frac{4}{3}\pi r^3$ .

(calculator)

- a. 9.61
- b. 96.1
- c. 113.1
- d. 133.1

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- 10. It takes Eva 1 minute to take an order and 3.5 minutes to prepare a drink. Suppose Eva must take an order in between every drink she makes, and there are enough customers such that Eva is constantly working. How many full drinks can she make in her 5-hour shift with a 10-minute break? (calculator)
  - a. 85 drinks
  - b. 82 drinks
  - c. 66 drinks
  - d. 64 drinks