Math Madness #50

1. Which statement is true?

   a. $\frac{8}{100}$ is equivalent to 0.008

   b. 0.7 is less than 0.07

   c. $\frac{15}{10}$ is equivalent to 1.05

   d. 0.9 is greater than $\frac{9}{100}$

2. Which of the following shows this number in standard form?

   $$(3 \times 10) + (5 \times \tfrac{1}{10}) + (7 \times \tfrac{1}{1,000})$$

   a. 3.057
   b. 3.507
   c. 30.057
   d. 30.507

3. Diego is building a habitat for his guinea pig. He started with a piece of wood that was $8\frac{1}{2}$ feet long. He cut off a piece of wood that was $2\frac{3}{5}$ feet long and another that was $4\frac{7}{10}$ feet long. How long is the remaining piece of wood?

   a. $1\frac{1}{5}$ feet   c. $2\frac{1}{5}$ feet

   b. $1\frac{5}{8}$ feet   d. $2\frac{5}{8}$ feet

4. Every Monday April puts 8 gallons of gas in her car. Last Monday she paid $3.73 for each gallon of gas. This week she paid $3.59 for each gallon of gas. How much less did April pay for gas this week than she did last week?

   a. $1.07
   b. $1.12
   c. $10.07
   d. $10.25

5. Which statement is true?

   a. Some triangles have 3 acute angles.
   b. Some triangles have 2 obtuse angles.
   c. Some triangles have 1 right, 1 acute, and 1 obtuse angle.
   d. Some triangles have 2 right angles.

6. This is Tanya's jar of jellybeans. The jar has 8 cherry and 2 lemon jellybeans in it.

   If Tanya takes a jellybean out of the jar without looking, what is the probability it will be a lemon jellybean?

   a. $\frac{1}{5}$ c. $\frac{1}{2}$

   b. $\frac{1}{4}$ d. $\frac{4}{5}$

7. This stem-and-leaf shows the daily low temperature over 14 days. Based on this information, select *all* the true statements.

   Daily Low Temperature (°F)

Stem	Leaf
2	7 9
3	0 1 1 3 7 7 7 9
4	2 3 3 4

   2|7 means 27°F

   a. The mode is 17°.
   b. The range is 17°.
   c. The median is 37°.
   d. The mode and median are the same.

8. Which equation represents this statement?

   ## The difference between ten and five multiplied by eight is forty

   a. $8 + (10 - 5) = 40$
   b. $8 + (10 \div 5) = 40$
   c. $8 (10 - 5) = 40$
   d. $8 (10 \div 5) = 40$

9 & 10 (2 points) Constructed Response

Herman has blocks that are each 1 cubic centimeter. This diagram shows the dimensions of the box Herman bought to store his blocks in. Based on this information, answer the following questions. Be sure to show all your work.

How many blocks will it take to cover the bottom of the box? ___**6 × 6 = 36**___

How many layers of blocks will fit in the box? ___**6**___

How many blocks will Herman use in all? ___**6 × 6 × 6 = 216**___

What is the volume of the box? ___**216 cm³**___

6 cm
6 cm
6 cm