Math Madness #100

1. Eleven buses arrive at a state park. Each bus has exactly 46 passengers. After unloading, passengers are assigned to cabins that each sleep 12 people. How many cabins are needed to accommodate all the passengers?

   a. 41
   b. 42
   c. 43
   d. 44

5. Which operation makes the relationship true?

   a. ×
   b. +
   c. ÷
   d. −

| Y = 0, 3, 6, 9, 12 |
| Z = 0, 9, 18, 27, 36 |

$$Y = \frac{1}{3} \underline{\quad} Z$$

2. A cake recipe calls for $1\frac{3}{5}$ cups of sugar. How much sugar is needed to make 4 cakes?

   a. $5\frac{1}{3}$ cups

   b. $5\frac{2}{3}$ cups

   c. $6\frac{2}{5}$ cups

   d. $6\frac{4}{5}$ cups

6. Which statement is **not** true?

   a. A rectangle is a parallelogram with right angles.
   b. A trapezoid is a quadrilateral.
   c. A parallelogram is a quadrilateral with opposite sides that are parallel.
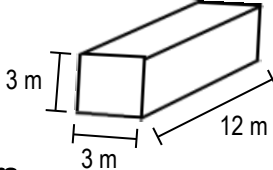   **d. A rhombus is a square.**

3. Joe made a pizza.

- He gave $\frac{1}{5}$ of the pizza to his father.
- He ate $\frac{1}{2}$ of the pizza.
- He gave the remaining pizza to three friends to share equally.

What fraction of the pizza did each friend get?

   a. $\frac{1}{10}$ b. $\frac{2}{15}$ c. $\frac{3}{10}$ d. $\frac{1}{3}$

7. The dimensions of box are shown below.

What is the volume of the box in cubic **centimeters**?

   a. 108 cubic centimeters
   b. 10,800 cubic centimeters
   c. 180 cubic centimeters
   d. 18,000 cubic centimeters

Helpful Hint: 1 m = 100 cm

4. Don bought a new tent for $175. He put $90 down and received a employee discount of $25. His brother gave him $\frac{1}{2}$ of the balance for his birthday. Which expression can be used to find the amount Don still owes for the tent?

   a. $175 - 90 + 25 \div 2$
   b. $175 - (90 - 25) \div 2$
   c. $[175 - (90 - 25)] \div 2$
   d. $[175 - (90 + 25)] \div 2$

8. Ryan made this pictograph to show the number of **feet** it snowed in each of these months.

How many **inches** did it snow in January?

   a. 24 inches
   b. 27 inches
   c. 28 inches
   d. 30 inches

Snowy Days		
December	❄	❄
January	❄	❄ ❄
February	❄	❄ ❄

Key: ❄ = 1 foot

Helpful Hint: 1 foot = 12 inches

9 & 10 (2 points) Short Answer / Extended Response

In Ms. Southwick's class, $\frac{3}{8}$ of the students play basketball. Of the students that play basketball, $\frac{2}{3}$ also play baseball. If there are 24 students in Ms. Southwick's class, how many students play basketball and baseball? Be sure to show each step in solving this problem.

   Step 1: $\frac{3}{8}$ of 24 = 9 students

   Step 2: $\frac{2}{3}$ of 9 = 6 students

_____**6**_____ students play both basketball and baseball.