Math Madness #75

1. Petra's dog had 4 puppies. This chart shows the weight of each puppy.
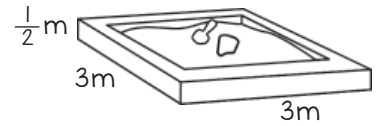
   Which list shows the puppies ordered from heaviest to lightest?

Puppy	Weight
Spot	$1\frac{12}{15}$ kg
Bella	2.11 kg
Fido	1.85 kg
Buddy	$2\frac{1}{8}$ kg

   a. Spot, Buddy, Bella, Fido
   b. Buddy, Bella, Fido, Spot
   c. Buddy, Bella, Spot, Fido
   d. Spot, Buddy, Fido, Bella

2. The factor tree for the number 28 is shown below. According to this factor tree, which statement is true?

   a. 14 is a prime number
   b. 28 is a prime number
   c. 2 and 7 are prime numbers
   d. The only prime factor of 28 is 2

   $$28$$
   $$2 \quad 14$$
   $$2 \times 2 \times 7$$

3. A manufacturer shipped 2,348 boxes to 3 stores and 1,964 boxes to 4 stores. How many boxes did the manufacturer ship in all?

   a. 7,044
   b. 7,856
   c. 13,890
   d. 14,900

4. Jamal must solve this equation.

   $$336 = \underline{\quad ? \quad} + (18 \times 3)$$

   Which could Jamal do to find the missing number?

   a. Add the product of 18 and 3 to 336
   b. Divide the product of 18 and 3 by 336
   c. Subtract the product of 18 and 3 from 336
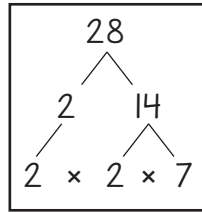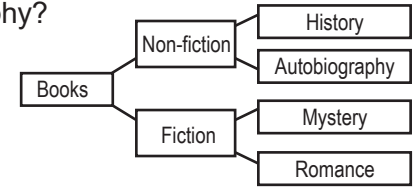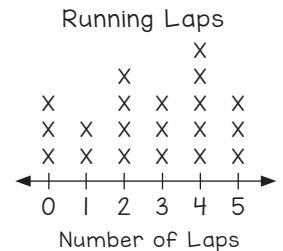   d. Multiply 18 and 3 and then subtract 336

5. Mitch will buy sand to fill this sandbox. Each bag holds 1 cubic meter of sand. How many bags of sand does Mitch need to buy?

   a. 4
   b. 5
   c. 9
   d. 10

   $\frac{1}{2}$ m, 3m, 3m

6. This tree diagram shows the books Tim can choose from. The librarian has an equal number of each type of book on a shelf. If Tim randomly takes one book off the shelf, what is the probability he will pick an autobiography?

   a. $\frac{1}{8}$ c. $\frac{1}{5}$
   b. $\frac{1}{6}$ **d. $\frac{1}{4}$**

   Books → Non-fiction → History, Autobiography
   Books → Fiction → Mystery, Romance

7. A coach made this line plot to show the number of laps each athlete ran one afternoon.

   If each lap is $\frac{1}{4}$ mile, how many athletes ran at least 1 mile?

   a. 3   c. 14
   b. 8   d. 18

   Running Laps
   ```
                          X
              X        X
   X          X  X  X  X
   X  X  X  X  X  X
   X  X  X  X  X  X
   +--+--+--+--+--+--+
   0  1  2  3  4  5
      Number of Laps
   ```

8. Ross created the pattern shown. Write T for true or F for false to answer each statement.

   $$26.7,\ 36.225,\ 45.75,\ \underline{\quad},\ 64.8$$

   T The missing number is 55.275.
   T The rule for this pattern is add 9.525.
   F If the pattern continues, the next number will be 74.32.

9 & 10 (2 points) Constructed Response

This stem-and-leaf plot shows the spelling test scores for the students in a class.

What are the top three test scores? **95, 95, 100**

According to the grading scale, how many students earned an A? **9**

Henry earned the same score as five other students. What was Henry's score? **85**

Grading Scale	
Grade	Score
A	90-100
B	80-89
C	70-79
D	60-69

Spelling Test Scores

Stem	Leaf
6	5
7	0 5
8	0 0 5 5 5 5 5 5
9	0 0 0 5 5 5 5 5
10	0

6|5 means 65