

Questions for the Math Core Competency survey

1. If Heather rode for 1 hour and 15 minutes at 8 miles per hour. How far did Heather go?
 - a. 5 miles
 - b. 10 miles
 - c. 15 miles
 - d. 20 miles

2. Carol has 7 boxes of oranges. Each box holds 20 oranges and there are 16 boxes in a case. How many oranges does Carol have?
 - a. 112 oranges
 - b. 140 oranges
 - c. 320 oranges
 - d. 2240 oranges

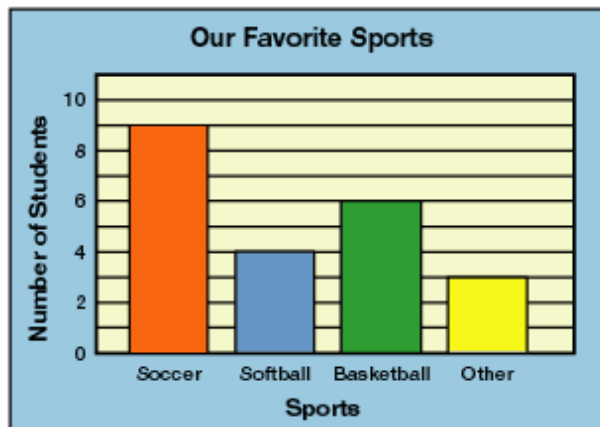
3. The school is planning a field trip. The school has 12 classrooms. There are 310 students in the school. Each bus holds 20 students. How many buses are needed to take all the students on the field trip?
 - a. 16 buses
 - b. 20 buses
 - c. 22 buses
 - d. 26 buses

4. Clarence wants to split a collection of candies into groups of 32. Clarence has 1664 candies. How many groups will be created?
 - a. 25
 - b. 32
 - c. 48
 - d. 52

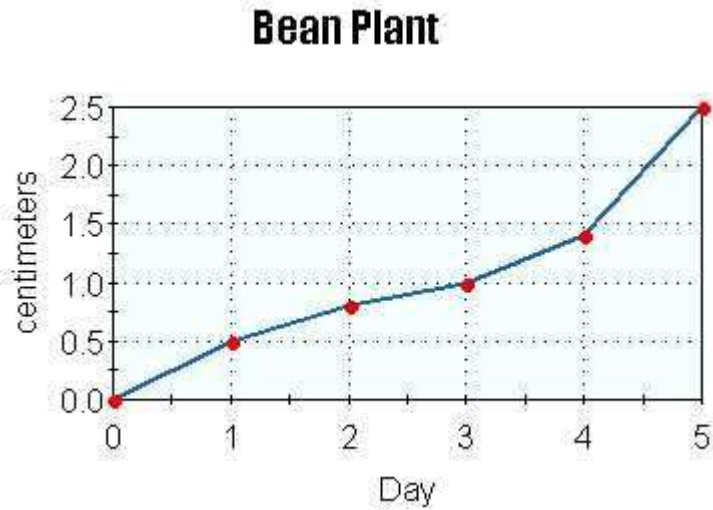
5. Determine the place of the underlined digit. 68.31
 - a. Tenths
 - b. Hundredths
 - c. Tens
 - d. Hundreds

6. Karen has 2 quarters, 4 nickels, 8 dimes. Write a ratio, in lowest terms, comparing her number of quarters to her number of dimes.
 - a. $\frac{2}{14}$
 - b. $\frac{2}{12}$
 - c. $\frac{1}{4}$
 - d. $\frac{2}{8}$

7. Write the following ratio as a percent. 72 to 100
- 72/100%
 - 28%
 - 72%
 - 0.72%
8. A prom dress marked at \$325 is on sale at 60% off. What is the discount?
- \$185
 - \$195
 - \$140
 - \$130
9. Solve the following equation: $\frac{125}{5} + 12 \times 7 =$
- 109
 - 191.8
 - 259
 - 365.2
10. Solve the following equation: $\frac{6 \times (21 - 7)}{21} =$
- 3.99
 - 7
 - 5.6
 - 4
11. In the following bar graph, which sport had six students list it as their favorite sport?
- Soccer
 - Softball
 - Basketball
 - Other

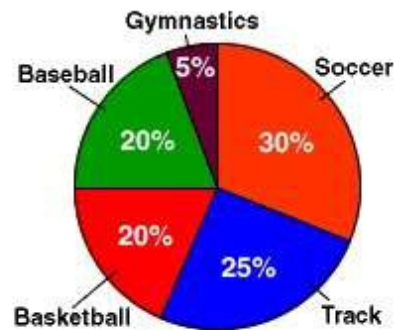


12. In the following line graph, how many centimeters tall was the bean plant on day 3?
- a. 0.5 cm
 - b. 1.0 cm
 - c. 1.5 cm
 - d. 2.5 cm



13. Which sport at Cove Elementary school is the least favorite among students?
- a. Baseball
 - b. Gymnastics
 - c. Basketball
 - d. Soccer

Most popular sports at Cove Elementary School.



14. Board Cutting: A 52 inch board is cut into three pieces. The first piece is one-half the length of the third piece. The second piece is one-eighth the length of the third piece. Find the length of each piece.
- a. 16 in; 4 in; 32 in
 - b. 18 in; 2 in; 32 in
 - c. 14 in; 6 in; 32 in
 - d. 12 in; 18 in; 22 in
15. Van Rental: Truck-Rite rents vans at a daily rate of \$64.95 plus 57 cents per mile. What mileage will allow a salesperson to stay within a daily budget of \$400?
- a. 578.8 miles
 - b. 878.5 miles
 - c. 587.8 miles
 - d. 758.8 miles

Alpena Community College
Core Competency #3 Mathematical Concepts
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