

- 1. On the number line above, the arrow is pointing to a number that is closest to which of the following?
 - A. 0.20
 - B. 0.37
 - C. 0.62
 - D. 0.75
 - E. 1.62
- 2. In the past year and a half, Alfred's dog gained an average of $\frac{1}{4}$ pound each month. Today, Alfred's dog weighs 75.5 pounds. How much did the dog weigh a year and a half ago?
 - A. 57.5 pounds
 - B. 71.0 pounds
 - C. 71.5 pounds
 - D. 74.0 pounds
 - E. 79.5 pounds
- 3. Rima and Eric have earned a total of 135 tokens to buy items at the school store. The ratio of the number of tokens that Rima has to the number of tokens that Eric has is 8 to 7. How many tokens does Rima have?
 - A. 8
 - B. 15
 - C. 56
 - D. 72
 - E. 120
- 4. Fred and three of his friends have decided to rent an apartment. Their monthly expenses are shown in the table below.

MONTHLY EXPENSES

Category Amount per Month Rent \$900 Utilities \$100 to \$150 Food \$200 to \$450

The four people will share all the expenses equally.

(a) Show how Fred would determine the greatest amount he would have to pay in any month.

(b) What is that greatest monthly amount?

- 5. Sally can buy 20 pencils for \$0.99. What is the greatest number of pencils Sally can buy for \$3.00?
 - A. 30
 - B. 45
 - C. 60
 - D. 75
 - E. 90
- 6. Helga's process calculates approximately what percent of the original bill?

Helga's process of calculating the tip to leave in a restaurant starts with the bill for food and drink.

- First, she rounds the bill to the nearest ten cents.
- Then she moves the decimal point in the rounded total one place to the left.
- Finally, she doubles that amount.
- A. 2%
- B. 5%
- C. 10%
- D. 15%
- E. 20%

7. The ratio of boys to girls to adults at a school party was 6:5:2. There were 78 people at the party. How many of them were adults?

- A. 6
- B. 12
- C. 18
- D. 30
- E. 36
- 8. (a) If c and d are different prime numbers less than 10 and the sum c + d is a composite number greater than 10, what is one possible pair of values for c and d?

c = _____ d = _____

(b) If j and k are different prime numbers less than 10 and the sum j + k is a prime number less than 10, what is one possible pair of values for j and k?

j = _____ k = _____

(c) If s and t are different prime numbers greater than 10, explain why the sum s + t cannot be a prime number.