1. If \(-1 < t < 0\), which of the following statements must be true?
   a. \(t^3 < t < t^2\)  b. \(t^2 < t^3 < t\)  c. \(t^2 < t < t^3\)
   d. \(t < t^3 < t^2\)  e. \(t < t^2 < t^3\)

2. Without taking a single break, Mercedes hiked for 10 hours, up a mountain and back down by the same path. While hiking, she averaged 2 miles per hour on the way up and 3 miles per hour on the way down. How many miles was it from the base of the mountain to the top?
   a. 4  b. 6  c. 9  d. 12  e. 18

3. When a certain rectangle is folded in half, it forms two squares. If the perimeter of one of these squares is 28, what is the perimeter of the original rectangle?
   a. 30  b. 42  c. 49  d. 56
   e. Cannot be determined from the information given.

4. A class of 50 girls and 60 boys sponsored a road rally race. If 60% of the girls and 50% of the boys participated in the road rally, what percent of the class participated in the road rally?
   a. 54.5%  b. 55%  c. 57.5%  d. 88%  e. 110%

5. The sum of four consecutive integers is \(s\). In terms of \(s\), which of the following is the smallest of these four integers?
   a. \(\frac{s-6}{4}\)  b. \(\frac{s-4}{4}\)  c. \(\frac{s-3}{4}\)  d. \(\frac{s-2}{4}\)  e. \(\frac{s}{4}\)

6. On a certain map, 30 miles is represented by one-half inch. On the same map, how many miles are represented by 2.5 inches?

7. How many of the first one hundred positive integers contain the digit 9?

8. The sum of \(n\) and \(n + 1\) is greater than five but less than 15. If \(n\) is an integer, what is one possible value of \(n\)?
9. In the figure at right, ΔABC is a right triangle and 
\( \frac{y}{6} = \frac{6}{10} \). What is the value of \( y \)?

10. For three numbers \( a, b, \) and \( c \), the average (arithmetic mean) is twice the median.
    If \( a < b < c \), \( a = 0 \), and \( c = kb \), what is the value of \( k \)?

**Answers**

1. D
2. D
3. B
4. A
5. A
6. 150 miles
7. 19 integers
8. \( n \) can be 3, 4, 5, or 6
9. \( y = 3.6 \)
10. \( k = 5 \)