

1. Misha's favorite number is even. Her favorite number is also non-negative and less than 1. What is Misha's favorite number?

Answer: 0

2. A car is averaging 50 miles per hour. If the car maintains this speed, how many minutes less would a 450-mile trip take than a 475-mile trip?

Answer: 30 (minutes)

3. Three coplanar circles intersect as shown. What is the maximum number of points on the circles that a line passing through all three circles can touch?



Answer: 6 (points)

4. An equilateral triangle and a square have the same perimeter of 12 inches. What is the ratio of the side length of the triangle to the side length of the square? Express your answer as a common fraction.

Answer: $\frac{4}{3}$

5.If $2x + y = 8$, what is the value of $4x + 2y$?

Answer: 16

6. Climbing the first flight of stairs takes Jimmy 20 seconds, and each following flight takes 5 seconds more than the preceding one. How many total seconds does it take to climb the first five flights of stairs?

Answer: 150 (seconds)

7.If $a + b = c$ and $b + c = 11$
and $c = 8$, what is the value of a ?

Answer: 5

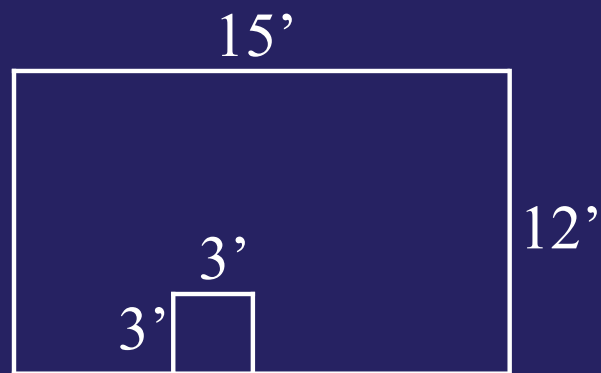
8. What is the greatest three-digit integer in which the product of the digits is 0?

Answer: 990

9. Steve will write the list of consecutive integers, starting with 1, at the speed of 5 digits per second. What will be the sum of the final two digits he writes on his list at the end of 10 seconds?

Answer: 12

10. The fenced area of a yard is a 15-foot by 12-foot rectangular region with a 3-foot by 3-foot square cut out, as shown. What is the area of the region within the fence, in square feet?



Answer: 171 (ft²)