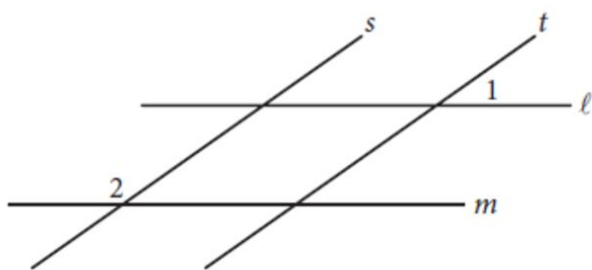


1.



In the figure above, lines ℓ and m are parallel and lines s and t are parallel. If the measure of $\angle 1$ is 35° , what is the measure of $\angle 2$?

- A) 35°
- B) 55°
- C) 70°
- D) 145°



2.

In the xy -plane, the point $(3, 6)$ lies on the graph of the function $f(x) = 3x^2 - bx + 12$. What is the value of b ?



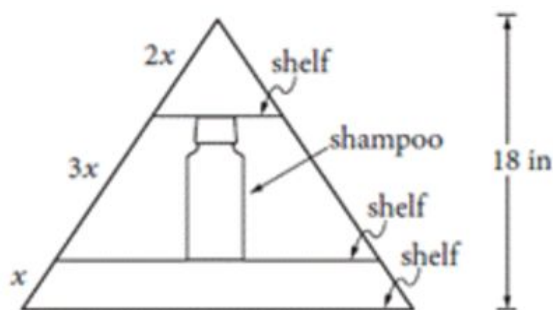
3.

Line ℓ in the xy -plane contains points from each of Quadrants II, III, and IV, but no points from Quadrant I. Which of the following must be true?

- A) The slope of line ℓ is undefined.
- B) The slope of line ℓ is zero.
- C) The slope of line ℓ is positive.
- D) The slope of line ℓ is negative.

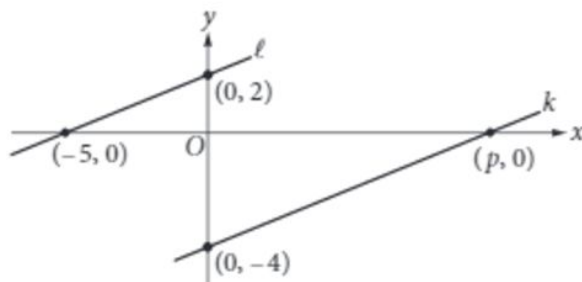


4.



Jim has a triangular shelf system that attaches to his showerhead. The total height of the system is 18 inches, and there are three parallel shelves as shown above. What is the maximum height, in inches, of a shampoo bottle that can stand upright on the middle shelf?

5.



In the xy -plane above, line ℓ is parallel to line k . What is the value of p ?

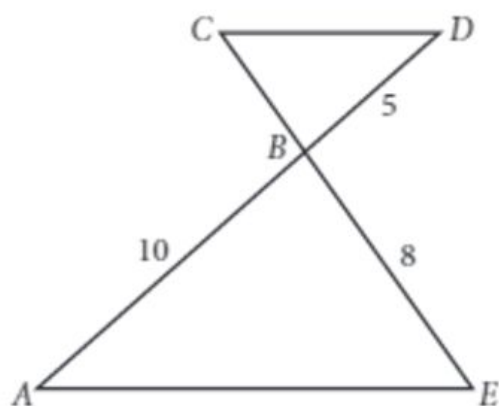
- A) 4
- B) 5
- C) 8
- D) 10

6.

The graph of a line in the xy -plane has slope 2 and contains the point $(1, 8)$. The graph of a second line passes through the points $(1, 2)$ and $(2, 1)$. If the two lines intersect at the point (a, b) , what is the value of $a + b$?

- A) 4
- B) 3
- C) -1
- D) -4

7.



In the figure above, $\overline{AC} \parallel \overline{DE}$ and segment AD intersects segment CE at B . What is the length of segment CE ?