Multiple Choice Benchmark Practice Section

1. Lines *m* and *n* are parallel. Line *m* is described by the equation $y = 4x + 2$ . Line *n* contains the point $(1, -3)$. Which of the following is an equation for line *n*?

   A. $y - 3 = 4(x + 1)$

   B. $y - 3 = -\frac{1}{4}(x + 1)$

   C. $y + 3 = 4(x - 1)$

   D. $y + 3 = -\frac{1}{4}(x - 1)$

2. Lines *p* and *q* are perpendicular. Line *p* is described by the equation $2x - 5y = 8$ . Line *q* passes through the point $(-6, 2)$. Which equation represents line *q*?

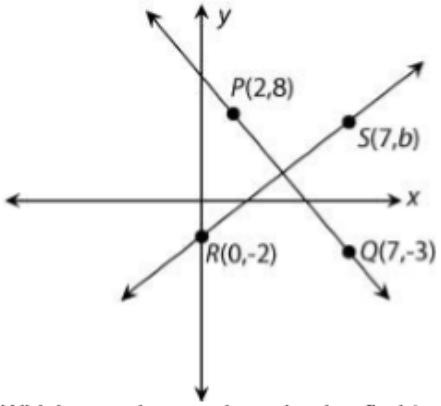
   A. $y = -\frac{5}{2}x - 13$

   B. $y = -\frac{5}{2}x + 13$

   C. $y = \frac{5}{2}x + 17$

   D. $y = \frac{5}{2}x - 17$

3. In the diagram below, $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RS}$ are perpendicular.




Which equation can be solved to find *b*, the *y*-coordinate of point *S*?

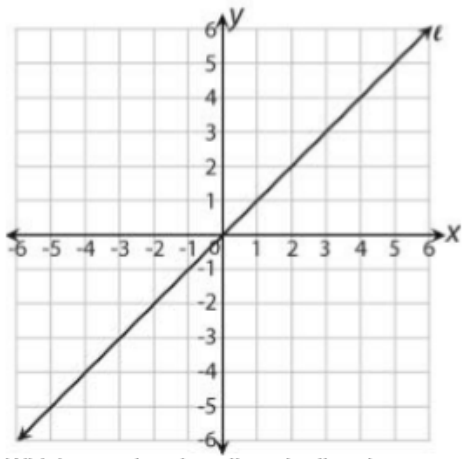
   A. $\frac{b+2}{7} = -\left(\frac{2-7}{8+3}\right)$

   B. $\frac{b+2}{7} = \frac{8+3}{2-7}$

   C. $\frac{b+2}{7} = -\left(\frac{8+3}{2-7}\right)$

   D. $\frac{b+2}{7} = \frac{2-7}{8+3}$

**4.** The coordinate plane below shows the graph of line *l*.




Which equation describes the line that passes through 3 on the *y*-axis and is parallel to line *l*?

A. $y = 3x + 3$

B. $y = 3x$

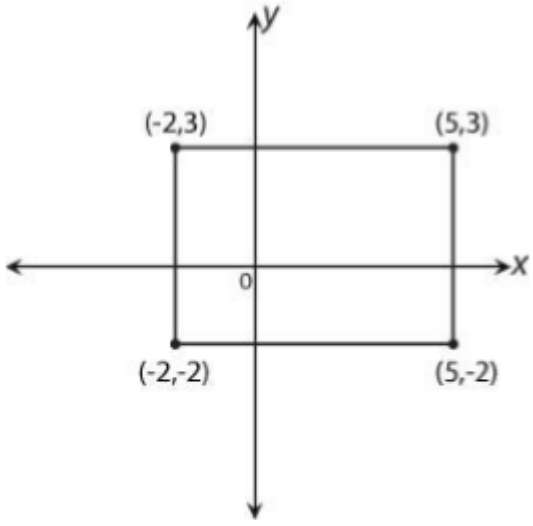
C. $y = -\frac{1}{3}x$

D. $y = x + 3$

**6. Directed line segment $\overrightarrow{PQ}$ has endpoints *P*(–8, –4) and *Q*(4, 12). Determine the point that partitions the directed line segment in a ratio of 3:1.**

( _____ , _____ )

**7.** What is the area of the rectangle below?



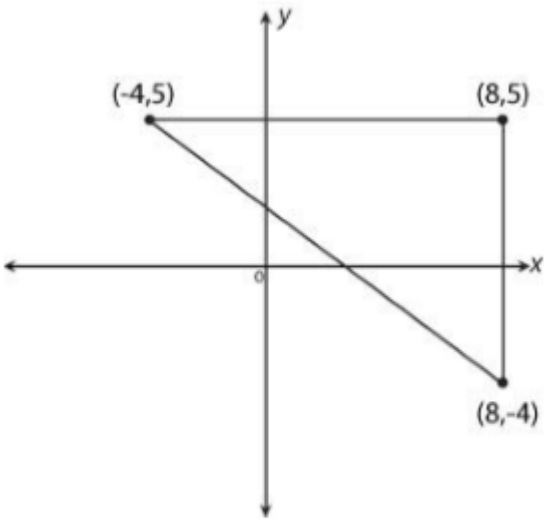

A. 24 square units

B. 28 square units

C. 35 square units

D. 40 square units

**8.** What is the perimeter of this triangle?




A. 33 units

B. 36 units

C. 39 units

D. 42 units