Name: _____ Date:_____

Ms. Streffacio Class: _____

8.EE.6

1. A line contains the points (4, 2) and (0, −1). What is the equation of the line?

A $y = 2x - 6$

B $y = \frac{3}{4}x - 1$

C $y = \frac{1}{4}x + 1$

D $y = \frac{4}{3}x - \frac{10}{3}$

2. What is the equation of the line that passes through point (4, 12) and has a *y*-intercept of −2?

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

B $y = \frac{7}{2}x - 2$

C $y = 2x - 2$

D $y = 6x - 2$

3. What is the equation of the line that passes through points (−3, 0.5) and (3, −0.5)?

A $y = -\frac{1}{6}x$

B $y = -6x$

C $y = -\frac{1}{6}x + 1$

D $y = -6x - 17.5$

4. The points $(4, 1)$ and $(x, -6)$ lie on the same line. If the slope of the line is 1, what is the value of x?

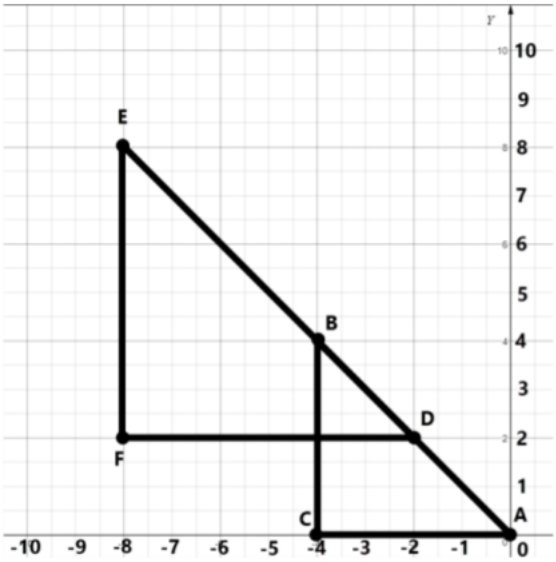
A $x = -3$

B $x = 3$

C $x = 9$

D $x = 11$

5. In the graph below ΔEDF is similar to ΔBAC.



Which proportion can be used to show that the slopes of $\overline{ED}$ and $\overline{BA}$ are the same?

A. $\frac{EF}{FD} = \frac{BC}{CA}$

C. $\frac{EB}{EF} = \frac{BD}{BC}$

B. $\frac{EB}{BD} = \frac{BD}{DA}$

D. $\frac{ED}{DF} = \frac{BA}{BC}$

6. What is the equation of the line that passes through point (4, 12) and has a y-intercept of -2.

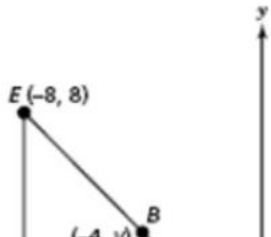
A. $y = \frac{5}{2}x - 2$

C. $y = 2x - 2$

B. $y = \frac{7}{2}x - 2$

D. $y = 6x - 2$

7. In the coordinate plane below, ΔABC is similar to ΔDEF.



What is the value of y?

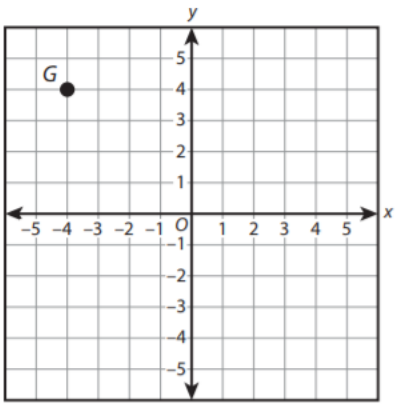
A. 3

C. -2

B. 4

D. 6

8. Point *G* is plotted on the coordinate plane.



Roland correctly wrote the equation of a line through point *G* as $y = mx - 4$.

What is the value of *m* in Roland's equation?

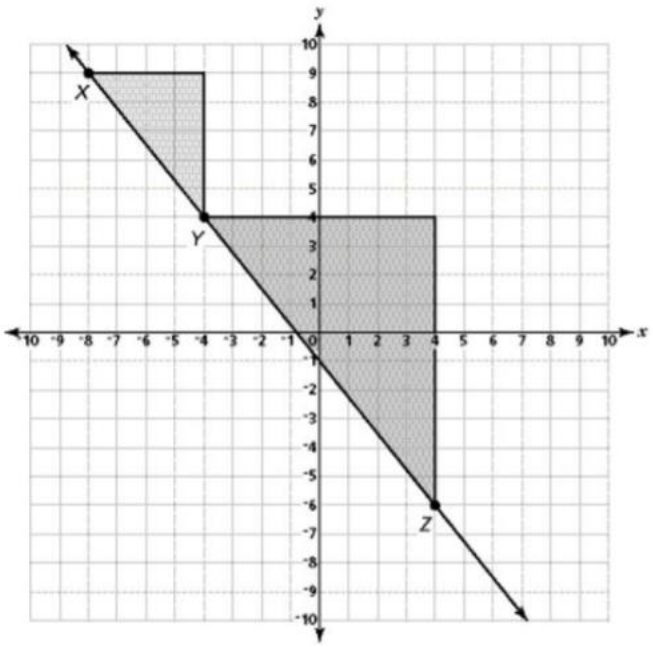
A −4

B −2

C 2

D 4

9. In the graph below, the two triangles are similar.



What conclusion can be drawn to determine the slope of line XZ?

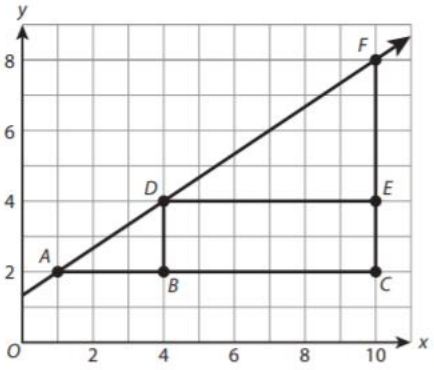
A. The slope of line XZ is $\frac{-10}{4}$, because this is the sum of the slopes of $\overline{XY}$ and $\overline{YZ}$.

B. The slope of line XZ is $\frac{-5}{4}$, because this is half the slope of $\overline{YZ}$, which is $\frac{-10}{8}$.

C. The slope of line XZ is $\frac{-10}{4}$, because this is twice the slope of $\overline{XY}$, which is $\frac{-5}{4}$.

D. The slope of line XZ is $\frac{-5}{4}$, because the slopes of $\overline{XY}$ and $\overline{YZ}$ are each $\frac{-5}{4}$.

10. Consider the graph shown. Choose *True* or *False* for each statement.



a. The slope between points *A* and *B* is the same as the slope between points *A* and *D*.

☐ True ☐ False

☐ True ☐ Fals

☐ True ☐ Fals

☐ True ☐ Fals

11. Chad's pay rate for babysitting is $y = 9x$, where x is the number of hours he babysits, and y is the number of dollars he earns. Horatio's pay rate is shown in the graph below.

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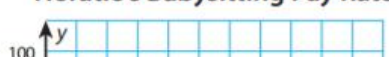
Horatio's Babysitting Pay Rate



In the graph below, the slopes of $\overline{AC}$ and $\overline{CE}$ are the same.