

Graphing linear equations

Which of the following equations represents a line in the xy -plane with an x -intercept at $(-2, 0)$ and a slope of 4?

(A) $y = 4x + 8$

(B) $y = -4x + 8$

(C) $y = 4x - 2$

(D) $y = -4x - 2$

The equation $y = \frac{3}{2}(x - 8)$ is graphed in the xy -plane. Which of the following equations will have a graph that is parallel to the graph of the above equation and have an x -intercept on the negative x -axis?

(A) $y = \frac{3}{2}(x + 8)$

(B) $y = \frac{3}{2}x - 8$

(C) $y = -\frac{2}{3}(x + 8)$

(D) $y = -\frac{2}{3}x - 8$

The equation $y = x + a$ is graphed in the xy -plane, where a is a positive constant. A second equation, $y = x - a$, is graphed in the same xy -plane. How do the slope and y -intercept of the graph of the first equation compare with the slope and y -intercept of the graph of the second equation?

(A) The slopes are the same; the y -intercept of the first equation's graph is the point $(0, a)$, and the y -intercept of the second equation's graph is the point $(0, -a)$.

(B) The slopes are the same; the y -intercept of the first equation's graph is the point $(0, -a)$, and the y -intercept of the second equation's graph is the point $(0, a)$.

(C) The y -intercepts are the same; the slope of the first equation's graph is a , and the slope of the second equation's graph is $-a$.

(D) The y -intercepts are the same; the slope of the first equation's graph is $-a$, and the slope of the second equation's graph is a .

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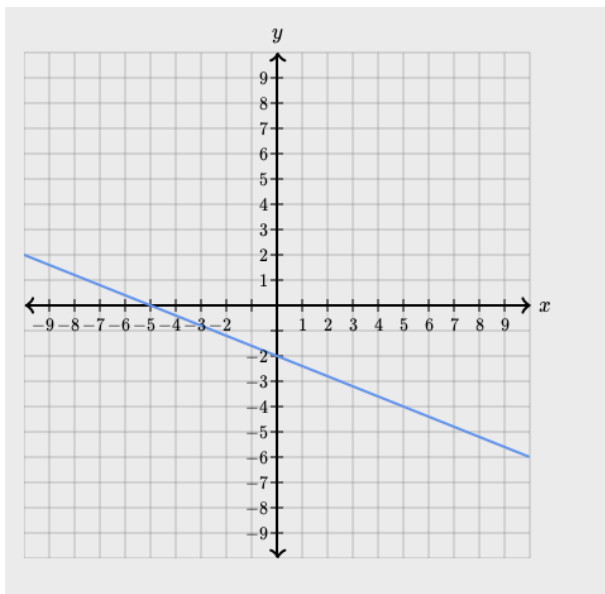
Which of the following is an equation of the line A graphed in the xy -plane that passes through the point $(-1, 3.5)$ and is *perpendicular* to the line B whose equation is $x + 4.5 = 0$?

A $x = -1$

B $x = 3.5$

C $y = 3.5$

D $y = 4.5$



A line is graphed in the xy -plane as shown at left. Which of the following is an equation of the line?

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

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

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

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