

SOL Warm-Up Graphing Calculator Active

A.6 (a) Graphing linear functions using slope and y-intercept

1. Which expression is equivalent to $21x + 35y - 14 = 0$?

A $y = -\frac{5}{3}x + 2$

B $y = \frac{3}{5}x - \frac{2}{5}$

C $y = -\frac{3}{5}x + \frac{2}{5}$

D $3x + 5y = 2$

2. Which line has a slope of -2 and a y-intercept of 7?

A $2x + y = 7$

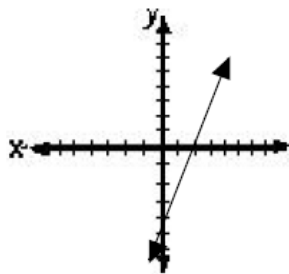
B $y = 2x + 7$

C $x - 2y = -7$

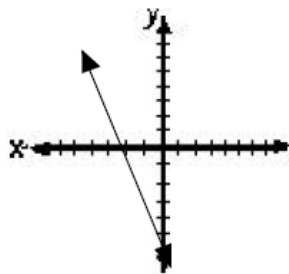
D $2x - y = 7$

3. Which line best represents the graph of $y = \frac{2}{5}x + 2$?

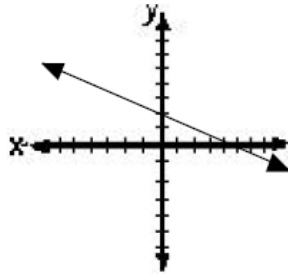
A



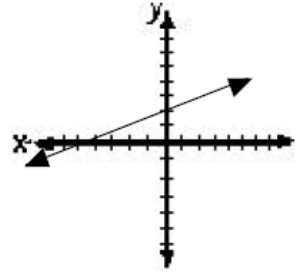
B



C

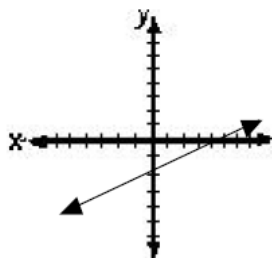


D

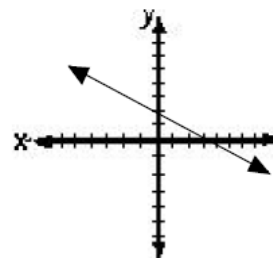


4. Which line best represents the graph of $x + 2y = -4$?

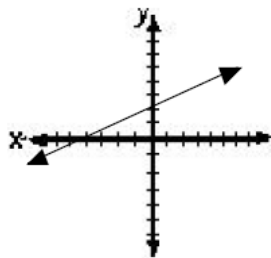
A



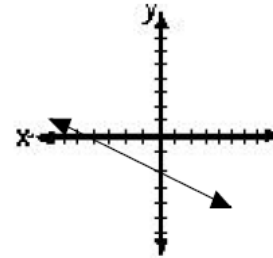
B



C



D



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A.7d (a) Graphing linear functions using x and y-intercept

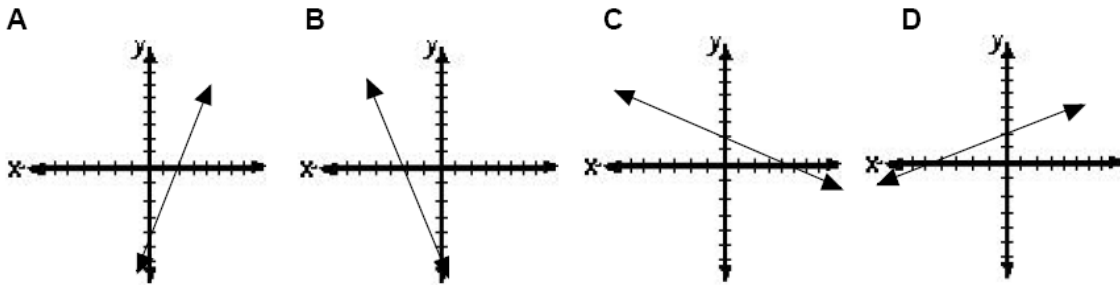
1. Which line has a y-intercept of -5?

- A $12x + 5y = 0$
- B $5x + 12y = -60$
- C $5x - 12y = 25$
- D $12x - 5y = -60$

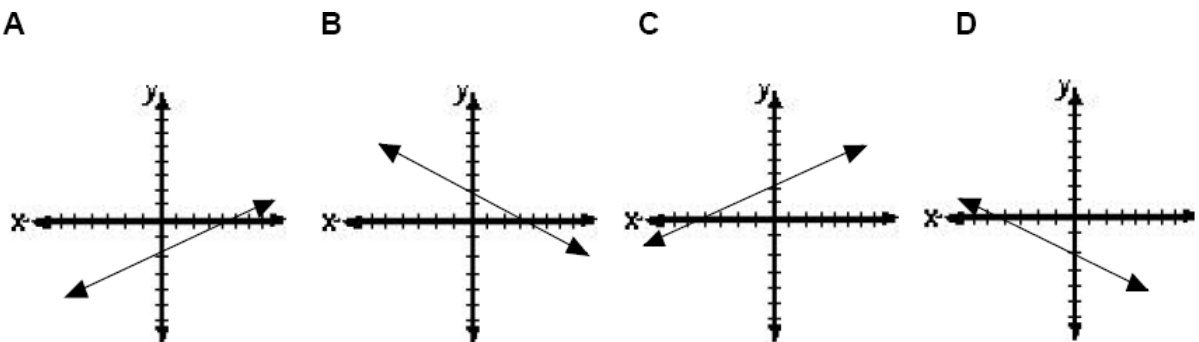
2. Which line has an x-intercept of -4?

- A $12x - 7y = -48$
- B $12x + 7y = 28$
- C $7x - 12y = -48$
- D $7x + 12y = 0$

3. Which line best represents the graph of $5x - 2y = 10$?



4. Which line best represents the graph of $x - 2y = -4$?

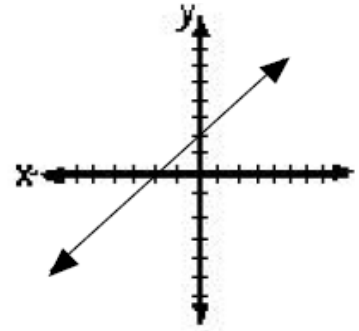


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A.6 (b) Using $y = x$ as a referent in graphing lines

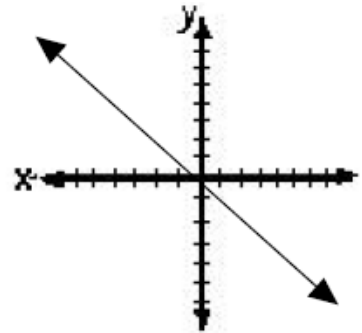
1. Which of the following best represents the graphed line?

- A** $y = x - 2$
- B** $y = x + 2$
- C** $y = 2x$
- D** $y = 2x + 1$



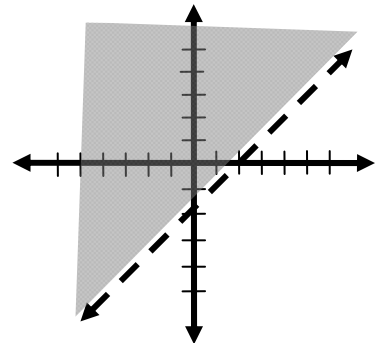
2. Which of the following best represents the graphed line?

- A** $y = x - 1$
- B** $y = x + 1$
- C** $y = -x$
- D** $y = x$



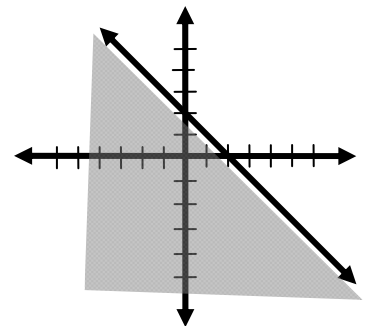
3. Which of the following best represents the graphed linear inequality?

- A** $y > x - 2$
- B** $y \geq x - 2$
- C** $y \leq x - 2$
- D** $y < x - 2$



4. Which of the following best represents the graphed linear inequality?

- A** $y \leq -x - 2$
- B** $y \geq x - 2$
- C** $y \leq -x + 2$
- D** $y \geq x + 2$



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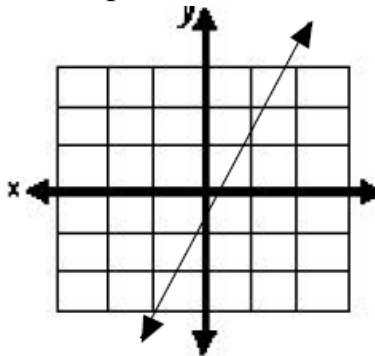
A.6a (a) Determining the slope of a line

1. What is the slope of the line $y = -8x + 6$?

- A -8
- B -6
- C 1
- D 8

2. Which is closest to the slope of the line shown on the graph?

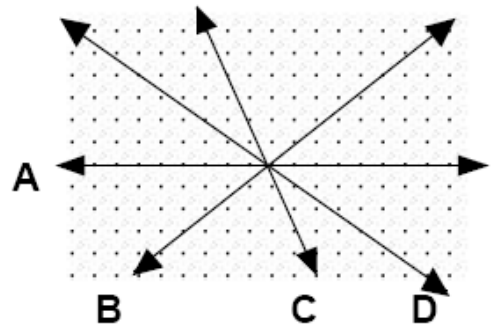
- A -2
- B $-\frac{1}{2}$
- C $\frac{1}{2}$
- D 2



3. Find the slope of the line that passes through the points $(-3,1)$ and $(2,-3)$.

- A $-\frac{5}{4}$
- B $-\frac{4}{5}$
- C $\frac{4}{5}$
- D $\frac{5}{4}$

4. Which of the following lines appears to have a slope of $-\frac{2}{3}$?



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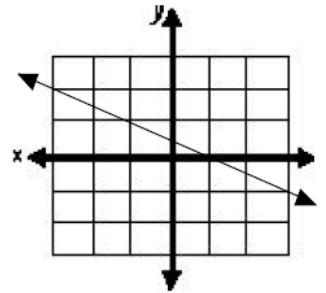
A.6a (b) Determining the slope of a line

1. What is the slope of the line $y = \frac{2}{5}x - 3$?

- A -3
- B $\frac{2}{5}$
- C 2
- D $\frac{5}{2}$

2. What is the slope of the line shown on the graph?

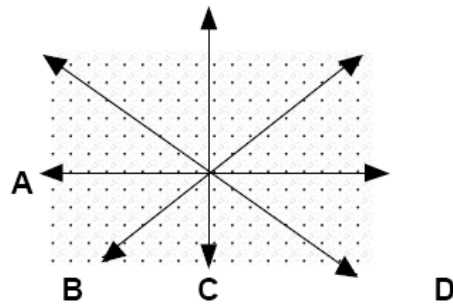
- A 2
- B -2
- C $-\frac{1}{2}$
- D $\frac{1}{2}$



3. Find the slope of the line that passes through the points (2, 3) and (5, 7).

- A $-\frac{4}{3}$
- B $-\frac{3}{4}$
- C $\frac{3}{4}$
- D $\frac{4}{3}$

4. Which of the following lines appears to have the slope of zero?



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A.6b (a) Writing the equation of a line

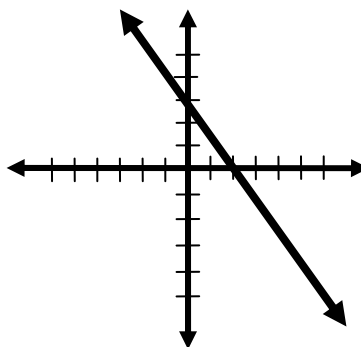
1. Which is most likely the equation of the line graphed below?

A $y = -\frac{2}{3}x + 3$

B $y = -\frac{3}{2}x + 3$

C $y = -\frac{2}{3}x + 1$

D $y = -\frac{3}{2}x + 1$



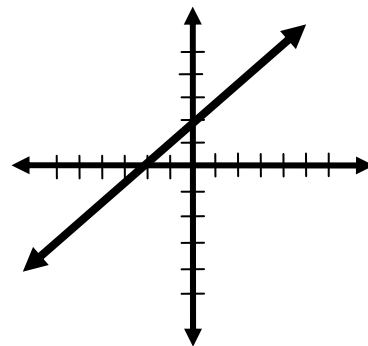
2. Which is most likely the equation of the line graphed below?

A $y = -x + 2$

B $y = 2x + 2$

C $y = x + 2$

D $y = -2x + 2$



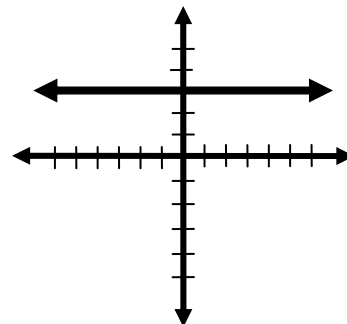
3. Which is most likely the equation of the line graphed below?

A $y = 3$

B $x = 3$

C $y = -3$

D $x = -3$



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A.6b (b) Writing the equation of a line when given the slope and a point on the line

1. What is the equation of the line through the point (0, -3) and having a slope of $\frac{2}{5}$?

A $y = -\frac{5}{2}x + \frac{15}{2}$

B $y = \frac{2}{5}x - 3$

C $y = \frac{2}{5}x + 3$

D $y = \frac{5}{2}x + 15/2$

2. What is the equation of the line through the point (5, -2) and having a slope of $-\frac{4}{5}$?

A $y = -\frac{5}{4}x + 2$

B $y = -\frac{4}{5}x + 2$

C $y = -\frac{4}{5}x + \frac{4}{5}$

D $y = \frac{5}{4}x + \frac{4}{5}$

3. Find the equation of the line through the point (1, 2) and having a slope of 2.

A $y = -2x + 4$

B $y = -2x$

C $y = 2x - 4$

D $y = 2x$

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A.6b (c) Writing the equation of a line when given two points on the line

1. What is the equation of the line through the R and S? **R (2, -5) S (6, 3)**

A $y = -\frac{1}{2}x - 6$

B $y = \frac{1}{2}x$

C $y = 2x - 9$

D $y = 2x + 12$

2. What is the equation of the line through the R and S? **R (-1, 7) S (-4, 9)**

A $y = -\frac{3}{2}x + \frac{11}{2}$

B $y = -\frac{2}{3}x + \frac{19}{3}$

C $y = \frac{2}{3}x + \frac{23}{3}$

D $y = \frac{3}{2}x + \frac{17}{2}$

3. What is the equation of the line through the R and S? **R (-2, -3) S (4, -3)**

A $x = -3$

B $y = -2$

C $y = -3$

D $x = 4$

4. What is the equation of the line through the R and S? **R (-6, 2) S (-6, -3)**

A $y = -6$

B $x = -6$

C $y = 2$

D $x = -3$