Unit 1B Day 1 Review Practice — Part B — Key

Intercepts, graphing, and special lines

Directions: Show work. Questions 1–3 review prerequisite skills.

1. State the slope and y-intercept.

$y = -\frac{2}{3}x + 4$

Answer:

$m = -\frac{2}{3},\ b = 4$

2. Solve for y.

$3y = -15$

Answer:

$y = -5$

3. Find y when x is zero.

$2x + 3y = 12$

Answer:

$3y = 12,\ y = 4$

4. $3x - 2y = 12$

a. Find the x-intercept as an ordered pair.
b. Find the y-intercept as an ordered pair.
c. Rewrite in slope-intercept form.

Answer:

$(4,0),\ (0,-6)$

$y = \frac{3}{2}x - 6$

5. $2x + 3y = 12$

a. Find the x-intercept as an ordered pair.
b. Find the y-intercept as an ordered pair.
c. Rewrite in slope-intercept form.

Answer:

$(6,0),\ (0,4)$

$y = -\frac{2}{3}x + 4$

6. $4x - 3y = 12$

a. Find the x-intercept as an ordered pair.
b. Find the y-intercept as an ordered pair.
c. Rewrite in slope-intercept form.

Answer:

$(3,0),\ (0,-4)$

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

7. $3x + 4y = 24$

a. Find the x-intercept as an ordered pair.
b. Find the y-intercept as an ordered pair.
c. Rewrite in slope-intercept form.

Answer:

$(8,0),\ (0,6)$

$y = -\frac{3}{4}x + 6$

8. $5x - 2y = 20$

a. Find the x-intercept as an ordered pair.
b. Find the y-intercept as an ordered pair.
c. Rewrite in slope-intercept form.

Answer:

$(4,0),\ (0,-10)$

$y = \frac{5}{2}x - 10$

9. $2x - 5y = 20$

a. Find the x-intercept as an ordered pair.
b. Find the y-intercept as an ordered pair.
c. Rewrite in slope-intercept form.

Answer:

$(10,0),\ (0,-4)$

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

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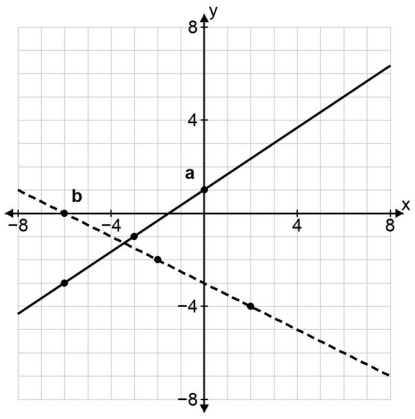
Intercepts, graphing, and special lines

Directions: Show work. Use up to the right (increasing) or down to the right (decreasing).

10. Graph both lines. Show two points on each and label a and b.

a. $y = \frac{2}{3}x + 1$

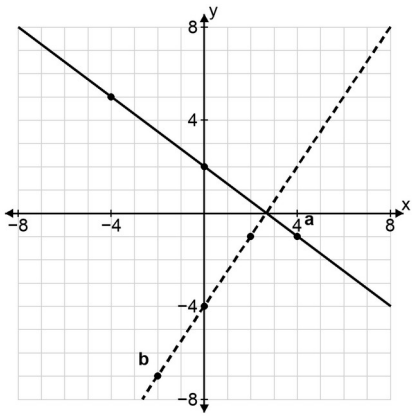
b. $y = -\frac{1}{2}x - 3$



11. Graph both lines. Show two points on each and label a and b.

a. $y = -\frac{3}{4}x + 2$

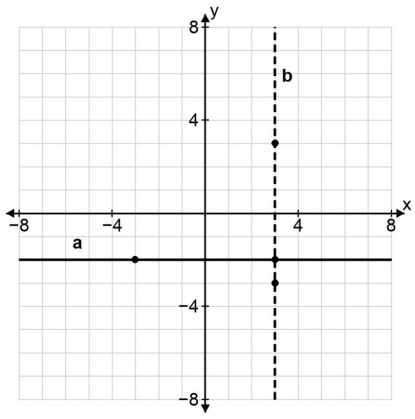
b. $y = \frac{3}{2}x - 4$



12. Graph both lines. Show two points on each and label a and b.

a. $y = -2$

b. $4x = 12$



13. Which statement describes $3x = -6$?

A. Horizontal; zero slope
B. Vertical; undefined slope **[correct]**
C. Vertical; zero slope
D. Horizontal; undefined slope

14. Which equation is a horizontal line through (−2, 6)?

A. $x = -2$ B. $y = -2$

C. $x = 6$ D. $y = 6$ **[correct]**

15. Which line is the steepest?

A. $y = \frac{2}{3}x + 4$ B. $y = x - 2$

C. $y = \frac{3}{2}x + 1$ **[correct]** D. $y = \frac{4}{3}x - 5$

16. Which line passes through (0, −1) and (2, 5)?

A. $y = 3x - 1$ **[correct]** B. $y = -3x - 1$

C. $y = 3x + 1$ D. $y = -x + 3$

17. Which equation is a vertical line through (4, −3)?

A. $y = 4$ B. $x = -3$

C. $x = 4$ **[correct]** D. $y = -3$

18. Which statement describes $y = -5$?

A. Vertical; zero slope
B. Horizontal; zero slope **[correct]**
C. Vertical; undefined slope
D. Horizontal; undefined slope