Unit 1B Day 2 Review Practice — Part B — Key

Two points, horizontal lines, and cost models

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

1. Solve for x.

$3x-6=0$

Answer:

$x=2$

2. Find the slope through (−1, 2) and (3, 4).

Answer:

$m=\frac{4-2}{3-(-1)}=\frac{1}{2}$

3. Solve for y.

$y-4=-2(x-3)$

Answer:

$y=-2x+10$

4. Write the line through (−3, −2) and (1, 6).

Answer:

$m=\frac{6-(-2)}{1-(-3)}=2$

$y+2=2(x+3)$

$y=2x+4$

5. Write the line through (−4, 5) and (2, −7).

Answer:

$m=\frac{-7-(5)}{2-(-4)}=-2$

$y-5=-2(x+4)$

$y=-2x-3$

6. Write the line through (−2, −3) and (4, 6).

Answer:

$m=\frac{6-(-3)}{4-(-2)}=\frac{3}{2}$

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

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

7. Write the line through (−3, 5) and (3, 1).

Answer:

$m=\frac{1-(5)}{3-(-3)}=-\frac{2}{3}$

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

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

8. Write the line through (−4, −1) and (4, 5).

Answer:

$m=\frac{5-(-1)}{4-(-4)}=\frac{3}{4}$

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

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

9. Write the line through (−4, 6) and (4, 2).

Answer:

$m=\frac{2-(6)}{4-(-4)}=-\frac{1}{2}$

$y-6=-\frac{1}{2}(x+4)$

$y=-\frac{1}{2}x+4$

Unit 1B Day 2 Review Practice — Part B — Key

Two points, horizontal lines, and cost models

Directions: Show work. Simplify equations to slope-intercept form and include units in word problems.

10. Write a horizontal line through (−3, 4).
Answer:

$y = 4$

11. Write a horizontal line through (2, −5).
Answer:

$y = -5$

12. Write a horizontal line through (0, 7).
Answer:

$y = 7$

13. Write a horizontal line through (6, −2).
Answer:

$y = -2$

14. Write a horizontal line through (−4, 0).
Answer:

$y = 0$

15. Write a horizontal line through (5, 3).
Answer:

$y = 3$

16.

$C(x) = 4 + 3x$

$22 = 4 + 3x$

$x = 6$ hours

17.

$C(x) = 3 + 0.50x$

$23 = 3 + 0.50x$

$x = 40$ miles

18.

$C(x) = 2 + 0.15x$

$8 = 2 + 0.15x$

$x = 40$ pages

19.

$C(x) = 5 + 2x$

$19 = 5 + 2x$

$x = 7$ hours

20.

$C(x) = 6 + 0.40x$

$22 = 6 + 0.40x$

$x = 40$ minutes

21.

$C(x) = 4 + 0.60x$

$25 = 4 + 0.60x$

$x = 35$ miles