

FOMP 10 Chapter 7 Review Pack v1 Answer Section

SHORT ANSWER

1. ANS:

m

PTS: 1 DIF: 1-2
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF6
KEY: slope | equation of a line

2. ANS:

b

PTS: 1 DIF: 1-2
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF6
KEY: y-intercept | equation of a line

3. ANS:

-5

PTS: 1 DIF: 1-2
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF6
KEY: y-intercept | equation of a line

4. ANS:

$-\frac{2}{3}$

PTS: 1 DIF: 1-2
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF6
KEY: slope | equation of a line

5. ANS:

slope: -2 , y-intercept: -2

PTS: 1 DIF: 1-2
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF5
KEY: slope | y-intercept | graph

6. ANS:

$y = -2x - 4$

PTS: 1 DIF: 1-2
TOP: General Form

OBJ: Section 7.2 NAT: RF6
KEY: slope-intercept form | equation of a line

7. ANS:

16

PTS: 1 DIF: 1-2
TOP: Slope-Point Form

OBJ: Section 7.3 NAT: RF3
KEY: slope | ordered pairs | run

8. ANS:

$-\frac{5}{3}$

PTS: 1 DIF: 1-2
TOP: Parallel and Perpendicular Lines

OBJ: Section 7.4 NAT: RF3
KEY: perpendicular lines | slope | equation of a line

9. ANS:
0

PTS: 1 DIF: 3-4
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF6
KEY: y-intercept | equation of a line

10. ANS:
 $3x + y - 4 = 0$

PTS: 1 DIF: 3-4
TOP: General Form

OBJ: Section 7.2 NAT: RF6
KEY: general form | equation of a line

11. ANS:
 $\frac{q-y}{p-x}$

PTS: 1 DIF: 3-4
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF3
KEY: slope | use formula

12. ANS:
 $y = \frac{-1}{4}x + 2$

PTS: 1 DIF: 3-4
TOP: Slope-Intercept Form

OBJ: Section 7.1 NAT: RF7
KEY: slope-intercept form | graph | equation of a line

13. ANS:
zero

PTS: 1 DIF: 3-4
TOP: General Form

OBJ: Section 7.2 NAT: RF1
KEY: general form | constraints

14. ANS:
 $y = -3x - 2$

PTS: 1 DIF: 3-4
TOP: General Form

OBJ: Section 7.2 NAT: RF6
KEY: slope-intercept form | equation of a line

15. ANS:
slope: -4 , y-intercept: -3

PTS: 1 DIF: 3-4
TOP: General Form

OBJ: Section 7.2 NAT: RF6
KEY: slope-intercept form | slope | y-intercept

16. ANS:
 $\frac{7}{-3}$

PTS: 1 DIF: 3-4
TOP: General Form

OBJ: Section 7.2 NAT: RF3
KEY: equation of a line | y-intercept | x-intercept

17. ANS:
 $3x + y - 2 = 0$

PTS: 1 DIF: 3-4
TOP: General Form

OBJ: Section 7.2 NAT: RF7
KEY: equation of a line | general form | slope | y-intercept

18. ANS:

$$y = -x - 5$$

PTS: 1 DIF: 3-4

OBJ: Section 7.3 NAT: RF7

TOP: Slope-Point Form

KEY: equation of a line given two points

19. ANS:

$$y = -4x + 3$$

PTS: 1 DIF: 3-4

OBJ: Section 7.3 NAT: RF7

TOP: Slope-Point Form

KEY: equation of a line given the slope and a point

20. ANS:

$$y = -2x + 6$$

The line must also have slope -2 . Substitute the slope and the coordinates of the point $(2, 2)$ into the equation $y = mx + b$ and solve for b :

$$2 = (-2)(2) + b$$

$$+ 6 = b$$

The equation of the line is $y = -2x + 6$.

PTS: 1 DIF: 3-4

OBJ: Section 7.4 NAT: RF7

TOP: Parallel and Perpendicular Lines

KEY: parallel lines | equation of a line given the slope and a point

21. ANS:

$$x - 4y - 3 = 0$$

PTS: 1 DIF: 5-6

OBJ: Section 7.2 NAT: RF6

TOP: General Form

KEY: general form | equation of a line

22. ANS:

17

Substitute the known values into the equation $A = P + Prt$:

$$A = P + P \cdot r \cdot t$$

$$t = \frac{A - P}{P \cdot r}$$

$$t = \frac{1344 - 800}{800 \cdot 0.04}$$

$$t = 17$$

The investment will be worth \$1344 in 17 years.

PTS: 1 DIF: 5-6

OBJ: Section 7.1 NAT: RF5

TOP: Slope-Intercept Form

KEY: slope-intercept form | interest | problem solving

23. ANS:

\$1136

Substitute the known values into the equation $A = P + Prt$:

$$A = P + Prt$$

$$A = 800 + (800)(0.03)(14)$$

The value of the investment after 14 years is \$1136.

PTS: 1 DIF: 5-6

OBJ: Section 7.1 NAT: RF5

TOP: Slope-Intercept Form

KEY: slope-intercept form | interest | problem solving

24. ANS:

slope: $-\frac{7}{5}$, y-intercept: $\frac{1}{7}$

PTS: 1 DIF: 5-6

TOP: General Form

OBJ: Section 7.2 NAT: RF6

KEY: slope-intercept form | slope | y-intercept

25. ANS:

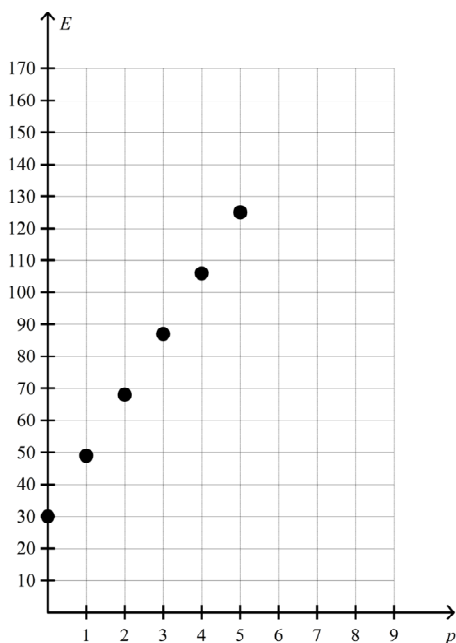
a) Let E represent Sarah's earnings in a day and p represent the number of purses she sells.

$$E = 19p + 30$$

b)

p	E
0	30
1	49
2	68
3	87
4	106
5	125

c)

d) Substitute $p = 10$ into the equation $E = 19p + 30$:

$$E = 19(10) + 30$$

$$E = 220$$

Sarah will earn \$220 if she sells 10 purses.

e) Substitute $E = 467$ into the equation $E = 19p + 30$:

$$467 = 19p + 30$$

$$23 = p$$

Sarah has to sell 23 purses to make \$467 in a day.

PTS: 1 DIF: 5-6 OBJ: Section 7.1 NAT: RF6 | RF7

TOP: Slope-Intercept Form

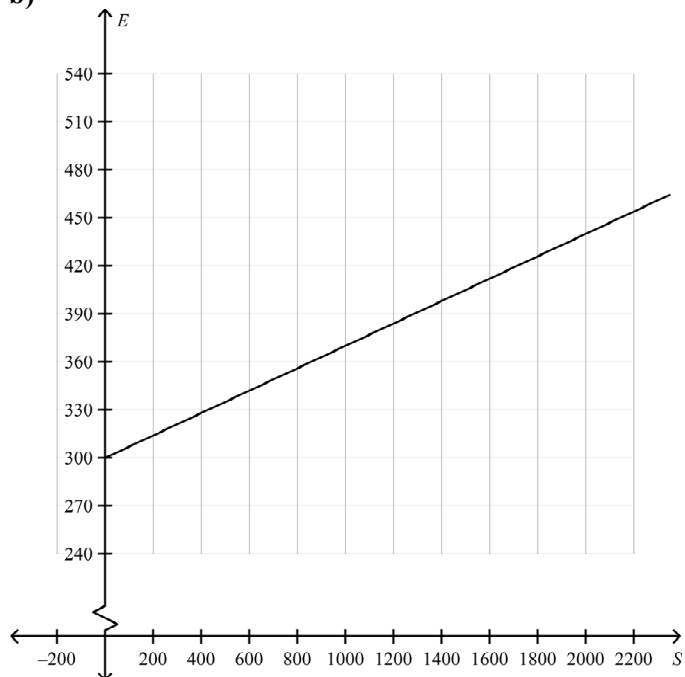
KEY: table of values | slope-intercept form | commission | sales | graph | earnings

26. ANS:
 $3x + 4y - 3 = 0$
- PTS: 1 DIF: 5-6 OBJ: Section 7.2 NAT: RF7
 TOP: General Form KEY: equation of a line | general form | slope | y-intercept
27. ANS:
 -4
- PTS: 1 DIF: 5-6 OBJ: Section 7.3 NAT: RF3
 TOP: Slope-Point Form KEY: slope | problem solving
28. ANS:
 $y = 2x - 8$
- PTS: 1 DIF: 5-6 OBJ: Section 7.3 NAT: RF7
 TOP: Slope-Point Form
 KEY: equation of a line given the slope and a point | table of values
29. ANS:
 $y = 4x - 12$
 The line must have slope 4. Identify the x -intercept of $4x - 3y = 12$.
 Substitute $y = 0$:
 $4x - 3(0) = 12$
 $x = 3$
 The point $(3, 0)$ is on the line.
 $y = mx + b$
 $0 = (4)(3) + b$
 $-12 = b$
 The equation of the line is $y = 4x - 12$.
- PTS: 1 DIF: 5-6 OBJ: Section 7.4 NAT: RF7
 TOP: Parallel and Perpendicular Lines
 KEY: parallel lines | slope | equation of a line given the slope and a point

30. ANS:

a) $E = 0.07S + 300$

b)



c) The slope is 0.07 and represents the commission of 7%, or \$7 for each \$100 of sales.

d) The E -intercept represents Mario's fixed weekly salary.

e) From the graph in part b), Mario's sales were \$1100 the week he earned \$377.

PTS: 1 DIF: 5-6 OBJ: Section 7.1 NAT: RF6 | RF7

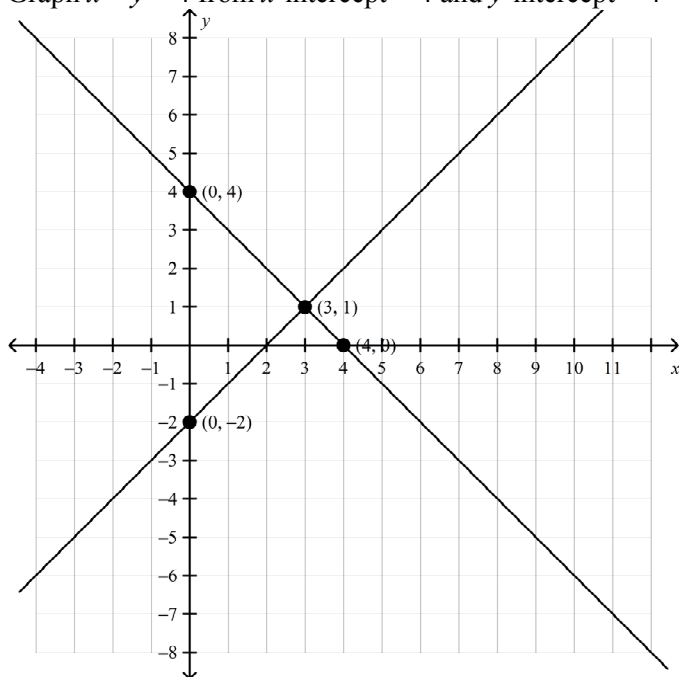
TOP: Slope-Intercept Form

KEY: commission | slope-intercept form | graph | equation of a line | interpolate | sales | earnings

31. ANS:

Graph $y = x - 2$ from slope intercept.

Graph $x + y = 4$ from x -intercept = 4 and y -intercept = 4



The point of intersection is $(3, 1)$.

PTS: 1

DIF: 7-8

OBJ: Section 7.4 NAT: RF6

TOP: Parallel and Perpendicular Lines

KEY: point of intersection | graph | x-intercept | y-intercept