Find the point-slope form of the equation of the line satisfying the given conditions and use this to write the slope-intercept form of the equation.

1) Slope =
$$8$$
, passing through $(3, 5)$

2) Slope =
$$-6$$
, passing through $(5, 5)$

3) Slope = 3, passing through
$$(-5, -9)$$

4) Slope =
$$\frac{6}{5}$$
, passing through $(0, 4)$

5) Slope =
$$-\frac{2}{5}$$
, passing through (0, 5)

6) Slope =
$$\frac{3}{5}$$
, passing through (10, -1)

7) Passing through
$$(0, -4)$$
 and $(1, -3)$

15) x-intercept =
$$-\frac{5}{2}$$
 and y-intercept = 3

16) x-intercept = 2 and y-intercept = 3

24) Parallel to the line 9x + 4y = 46; containing the point (6, -7).

- Write an equation in slope-intercept form of the line satisfying the given conditions.
 - 17) Parallel to the line y = 4x; containing the point (4, 2)
- 25) Perpendicular to the line x 5y = 5; containing the point (-2, -3).

- 18) Parallel to the line x + 4y = 8; containing the point (0, 0)
- 26) The line has a y-intercept at 9 and is parallel to the line containing (5, 24) and (8, 33).

- 19) Parallel to the line 3x y = 2; containing the point (0, 0)
- 27) Perpendicular to the line y = 4x + 2; containing the point (2, 2).

- 20) Parallel to the line y = 2; containing the point (1, 8)
- Solve the problem.

- 21) Parallel to the line x = -2; containing the point (7, 1)
- 28) The graph below shows the average retail price of the least–expensive DVD player available at Mega Mart over the past few years. Use the two points whose coordinates are given to find the slope–intercept form of an equation that models the data.

22) Parallel to the line y = -4x - 1; containing the point (2, 6)

Average Retail Price of Least Expensive DVD Player

23) Parallel to the line y = 3x - 6; containing the point (3, 3).

300 250 - 250 - 20

Answer Key

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1)
$$y = 8x - 19$$

2)
$$y = -6x + 35$$

3)
$$y = 3x + 6$$

4)
$$y = \frac{6}{5}x + 4$$

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

6)
$$y = \frac{3}{5}x - 7$$

7)
$$y = x - 4$$

8)
$$y = -x - 2$$

9)
$$y = x + 6$$

10)
$$y = -x + 4$$

11)
$$y = 4x + 1$$

12)
$$y = 4x + 7$$

13)
$$y = -\frac{3}{2}x + 1$$

14)
$$y = -\frac{4}{5}x - 7$$

15)
$$y = \frac{6}{5}x + 3$$

16)
$$y = -\frac{3}{2}x + 3$$

17)
$$y = 4x - 14$$

18)
$$y = -\frac{1}{4}x$$

19)
$$y = 3x$$

20)
$$y = 8$$

21)
$$x = 7$$

22)
$$y = -4x + 14$$

23)
$$y = 3x - 6$$

24)
$$y = -\frac{9}{4}x + \frac{13}{2}$$

25)
$$y = -5x - 13$$

26)
$$y = 3x + 9$$

27)
$$y = -\frac{1}{4}x + \frac{5}{2}$$

28)
$$y = -25x + 194$$