Math Worksheets

Point–slope Form

Find the slope of the following lines. Name a point on each line.

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

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

3) $y + 3 = -1.5x$

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

5) $y + 2 = 0.4\ (x + 3)$

6) $y - 8 = -3x$

7) $y - 12 = -3\ (x - 8)$

8) $y + 14 = 0$

9) $y + 18 = 2\ (x + 5)$

10) $y - 17 = -8\ (x - 3)$

Write an equation in point–slope form for the line that passes through the given point with the slope provided.

11) $(2, -3), m = 4$

12) $(-7, 4), m = \frac{1}{5}$

13) $(0, -6), m = -2$

14) $(-a, b), m = m$

15) $(-9, 1), m = 3$

16) $(3, 0), m = -5$

17) $(-4, 11), m = \frac{1}{3}$

18) $(0, 11), \mathrm{m} = 0$

19) $\left(-\frac{1}{3}, 3\right), m = \frac{1}{5}$

20) $(0, 0), m = -3$

Answers of Worksheets

Point–slope form

1) $m = 2, (-3, 0)$

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

3) $m = -\frac{3}{2}, (0, -3)$

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

5) $m = \frac{4}{10}, (-3, -2)$

6) $m = -3, (0, 8)$

7) $m = -3, (8, 12)$

8) $m = 0, (0, -14)$

9) $m = 2, (-5, -18)$

10) $m = -8, (-3, 17)$

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

12) $y - 4 = \frac{1}{5}(x + 7)$

13) $y + 6 = -2x$

14) $y - b = m(x + a)$

15) $y - 1 = 3(x + 9)$

16) $y = -5(x - 3)$

17) $y - 11 = \frac{1}{3}(x + 4)$

18) $y - 11 = 0$

19) $y - 3 = \frac{1}{5}\left(x + \frac{1}{3}\right)$

20) $y = -3x$