EffortlessMath

Math Worksheets

Name: _____

Date: _____

Slope–intercept Form and Point–slope Form

Write the slope–intercept form of the equation of each line.

1) $-14x + y = 7$

2) $-2\,(2x + y) = 28$

3) $-11x - 7y = -56$

4) $9x + 35 = -5y$

5) $x - 3y = 6$

6) $13x - 11y = -12$

7) $11x - 8y = -48$

8) $3x - 2y = -16$

9) $2y = -6x - 8$

10) $2y = -4x + 10$

11) $2y = -2x - 4$

12) $6x + 5y = -15$

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

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

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

15) $y + 3 = -1.5x$

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

17) $y + 2 = 1.3(x + 1)$

18) $y - 5 = 3x$

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

20) $y + 3 = 0$

21) $y + 2 = 3(x + 6)$

22) $y - 7 = -4(x - 2)$

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

23) $(1, 2), m = 7$

24) $(3, 5), \mathrm{m} = \frac{5}{3}$

25) $(2, -4), m = -1$

26) $(-1, 2), m = 2$

27) $(-1, 4), m = 4$

28) $(-1, 2), m = 2$

29) $(3, 1), \mathrm{m} = \frac{1}{2}$

30) $(-\ 2, 5), m = -4$

Answers

Slope–intercept form and Point–slope form

1) $y = 14x + 7$
2) $y = -2x - 14$
3) $y = -\frac{11}{7}x + 8$
4) $y = -\frac{9}{5}x - 7$
5) $y = \frac{x}{3} - 2$
6) $y = \frac{13}{11}x + \frac{12}{11}$
7) $y = \frac{11}{8}x + 6$
8) $y = \frac{3}{2}x + 8$
9) $y = -3x - 4$
10) $y = -2x + 5$
11) $y = -x - 2$
12) $y = -\frac{6}{5}x - 3$
13) $m = 2, (-3, 0)$
14) $m = \frac{2}{3}, (4, -2)$
15) $m = -\frac{3}{2}, (0, -3)$
16) $m = \frac{1}{2}, (3, 3)$
17) $m = \frac{13}{10}, (-1, -2)$
18) $m = 3, (0, 5)$
19) $m = -2, (4, 3)$
20) $m = 0, (3, -3)$
21) $m = 3, (-6, -2)$
22) $m = -4, (2, 7)$
23) $y - 2 = 7(x - 1)$
24) $y - 5 = \frac{5}{3}(x - 3) = 0$
25) $y + 4 = -(x - 2)$
26) $y - 2 = 2(x + 1)$
27) $y - 4 = 4(x + 1)$
28) $y - 2 = 2(x + 1)$
29) $y - 1 = \frac{1}{2}(x - 3)$
30) $y - 5 = -4(x + 2)$