Point Slope Form Name Nalxn ID: 1

Write the point-slope form of the equation of the line through the given point with the given slope.

1) through: $(-3, 1)$, slope = -2

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

2) through: $(1, 4)$, slope = 8

$y - 4 = 8(x - 1)$

3) through: $(-4, 1)$, slope = $\frac{3}{7}$

$y - 1 = \frac{3}{7}(x + 4)$

4) through: $(-5, -5)$, slope = $\frac{2}{5}$

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

5) through: $(1, 2)$, slope = 4

$y - 2 = 4(x - 1)$

Write the point-slope form of the equation of the line through the given points.

6) through: $(-4, 1)$ and $(3, -2)$

$y - 1 = -\frac{3}{7}(x + 4)$

7) through: $(-3, -2)$ and $(-4, 0)$

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

8) through: $(-3, -3)$ and $(-4, 2)$

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

9) through: $(3, 5)$ and $(-1, -5)$

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

10) through: $(3, -5)$ and $(0, -1)$

$y + 5 = -\frac{4}{3}(x - 3)$

10

Identify the point and the slope of each line.

11) $y+3=-\frac{8}{5}(x-5)$

$8x+5y=25$

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

$2x+3y=3$

13) $y-1=\frac{1}{5}(x+5)$

$x-5y=-10$

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

$x+3y=-3$

15) $y=-\frac{1}{5}(x-5)$

$x+5y=5$

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

$3x+y=-1$

17) $y-1=\frac{4}{5}(x-2)$

$4x-5y=3$

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

$y+2y=2$

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

$x-2y=-10$

20) $y+4=x+3$

$x-y=1$