Point - Slope Form

TRUTH

An equation in

POINT - SLOPE FORM

looks like:

$$y - y_1 = m(x - x_1)$$

Point - Slope Form WAY

Write each in Point – Slope and then in Slope – Intercept Form.

1) $y-14=-6(x+6)$

2) $y-8=\frac{2}{3}(x-3)$

3) $slope=-5\ ;\ (-14,-4)$

4) $slope=-\frac{1}{2}\ ;\ (6,11)$

5) $y-8=-2(x-7)$

6) $y-11=-\frac{4}{3}(x+12)$

7) $slope=13\ ;\ (12,2)$

8) $slope=-\frac{2}{3}\ ;\ (-12,-3)$

Point - Slope Form WAY

Write each equation in Slope – Intercept form given a point on the line and that the line is Parallel.

9) $y = 2x + 6\ ;\ (4,3)$

10) $y = -10x - 1\ ;\ (-1,-8)$

11) $y = \frac{1}{3}x + 2;\ (-12,10)$

12) $y = -\frac{8}{3}x - 2\ ;\ (9,-7)$

13) $4y + 36x = -20\ ;\ (8,7)$

14) $15x + y = 1\ ;\ (-14,-9)$

15) $7x + 3y = -9;\ (6,-11)$

16) $-54 - 18y = 16x\ ;\ (-9,8)$

Point - Slope Form WAY

Write each equation in Slope – Intercept form given a point on the line and that the line is Perpendicular.

17) $y = -3x + 3 \; ; \; (15,-4)$

18) $y = 7x + 5 \; ; \; (-7,-9)$

19) $y = -\frac{10}{9}x - 7 ; \; (-10,11)$

20) $y = \frac{3}{5}x + 6 \; ; \; (15,-13)$

21) $3y + 3x = -36 \; ; \; (4,12)$

22) $15x + y = 1 \; ; \; (-14,-9)$

23) $4y - 11x = 9 ; \; (11,-10)$

24) $-8y - 48 = 4x \; ; \; (7,-1)$