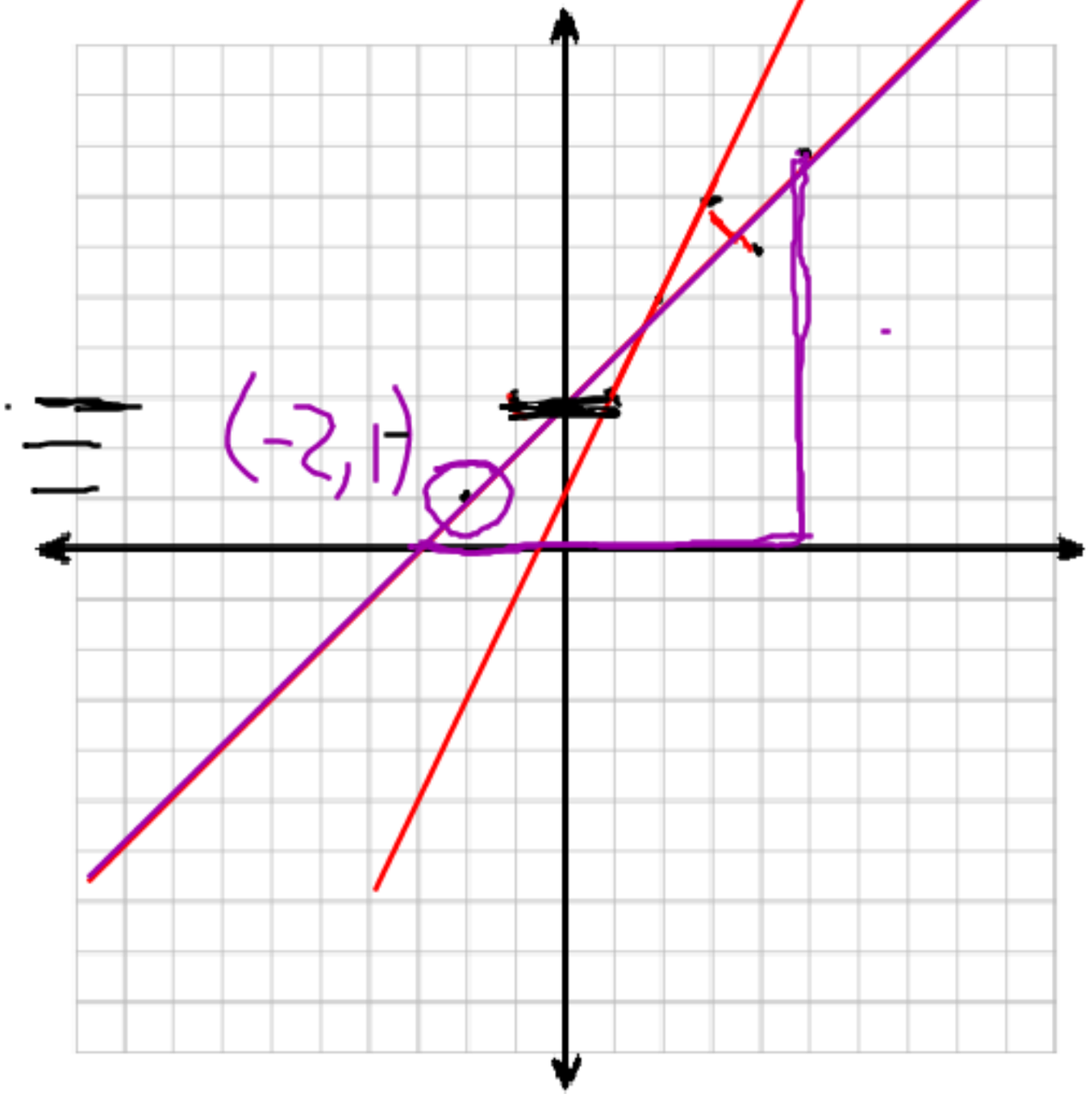
MAY 28 Finding Point Slope Form

56



+

$Slope = \frac{rise}{run} = \frac{8}{8}$

$m = 1$

$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$

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

$y = x + 3$

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

$$y-1 = x+2$$

$$+1 \qquad +1$$

$$y = x+3$$

FROM PREV.

b) $y = x+3$

$$-y \qquad -y$$

$$0 = x-y+3$$

SLOPE / Y-INTERCEPT

$$y = mx + b$$

Slope

$y = x + 3$

Slope:

$m = 1$

$b = 3$

p4/28) ① $y = 3x + 1$ $y = mx + b$

$m = 3$ $b = 1$

③ $y = -4/x + 3$ $m = -4$ $b = 3$

⑥ $y + 4 = 5x$

$-4 \quad -4$

$y = 5x - 4$ $m = 5$ $b = -4$

7) $y-2x=0$

$+2x \quad +2x$

$y=2x+0+0+0\ldots\ldots$

$m=2$

$b=0$

9) $4x+2y=3$

$-4x \quad -4x$

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

$\frac{2}{2}$

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

$m=-2$

$b=\frac{3}{2}$

11. $3x+2y+6=0$

$-3x \quad -3x \quad -6 \quad -6$

$2y=-3x-6$

$\frac{2y}{2}=\frac{-3x}{2}-\frac{6}{2}$

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

13. $x-3y-9=0$

$-x \quad +9 \quad -x \quad +9$

$-3y=-x+9$

$\frac{-3y}{-3}=\frac{-x}{-3}+\frac{9}{-3}$

$y=3x+3$

15. $22x+0.5y-1=0$

$-22x \quad +1 \quad -22x \quad +1$

$0.5y=-22x+1$

$\frac{0.5y}{0.5}=\frac{-22x}{0.5}+\frac{1}{0.5}$

$y=-44x+2$

15 $22x + 0.5y - 1 = 0$

$-22x \qquad +1$

$2(0.5y) = (-22x+1)2$

$y = -44x + 2$

$m = -44$

$b = 2$

(15) $22x + 0.5y - 1 = 0$

diff

$-0.5y$ $-0.5y$

$$\frac{-0.5y}{-0.5} = \frac{22x - 1}{-0.5} \quad \frac{}{-0.5}$$

$$y = -44x + 2$$

17 $p(6.4/x) = (0.8y)10$ (1)

$$\frac{64x}{8} = \frac{8y}{8}$$ (2)

$$y = 8x$$

19 $(1,3)\ (3,5)$

$x_1\ y_1\ x_2\ y_2$

$$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5-3}{3-1} = \frac{2}{2}$$

$m = 1$

$b = 2$

$$\frac{1}{1} = \frac{y-5}{x-3}$$

$$y - 5 = x - 3$$

$+5 \qquad +5$

$$y = x - 3 + 5$$

$$y = x + 2$$

22)

$(-1,-2)(-5,-10)$

$$m = \frac{-10-(-2)}{-5-(-1)} = \frac{-8}{-4} = 2$$

$$\frac{2}{1} = \frac{y-(-10)}{x-(-5)}$$

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

$$y = 2x$$

$m = 2$

$b = 0$

23) (2,1) (6,4)

$m = \frac{\Delta y}{\Delta x}$

$= \frac{4-1}{6-2}$

$= \frac{3}{4}$

$m = \frac{3}{4}$

$b = \frac{-1}{2}$

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

$4(y-1) = 3(x-2)$

$+4 \qquad +4$

$4y - 4 = 3x - 6$

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

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

Box 4 HOMEWORK

Up to and including 24