Heiday Barat

1) $f(x) = 2x - 2$

$f(-5) = 2(-5) - 2$

$f(-5) = -12$

2) $g(x) = -5x - 3$

$g(x) = 7$

$7 = -5x - 3$

$10 = -5x$

$x = -2$

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3) $m = \frac{2}{3}$

$b = -2$

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

4) $m = -\frac{2}{5}$

$b = (13)$

$(x, y) = (0, 13)$

$13 = \frac{-2}{5} \cdot 0 + b$

$13 = b$

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5) $m = (-1/2)$

$b = (17/2)$

$(x, y) = (3, 7)$

$\longrightarrow$

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{9 - 7}{-1 - 3} = \frac{2}{-4} = \frac{-1}{2}$

$7 = -\frac{1}{2} \cdot 3 + b \Rightarrow \frac{7 \cdot 2}{3} = b$

$\Rightarrow \frac{14}{3} = b$ $\quad 7 = \frac{-3}{2} + b$

$7 + \frac{3}{2} = b$

$\frac{17}{2} = b$

6) $m = ? = 2$

$b = ? = -5$

(x,y) = (3,1)

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1-3(-3)}{3-1} = \frac{4}{2} = 2$

$y = mx + b$

$1 = 2 \cdot 3 + b$

$1 = 6 + b$

$1 - 6 = b$

$-5 = b$

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7) $m = ? = 2$

$b = ? = 0$

(x,y) = (1,2)

$m = \frac{\text{rise}}{\text{run}} = \frac{8-2}{4-1} = \frac{6}{3} = 2$

$2 = 1 \cdot 2 + b$

$2 - 2 = b$

$b = 0$

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9) ~~If x~~ = for all 'x', 'y' is constant and $y = 4$

$f(x) = 4$

10) $m = -\frac{2}{3}$

$(x, y) = (2, -7)$

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

$-7 - y_1 = m(2 - x_1)$

11)

$m = ? = \frac{1}{2}$

$(x, y) = (-5, -2)$

$m = \frac{-2 - (-5)}{4 - (-2)} = \frac{3}{6} = \frac{1}{2}$

$(x_1, y_1) = (2, 4)$

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

$m = \frac{4 - (-2)}{-2 - (-5)} = \frac{6}{3} = 2$

$(x_1) = -2 \;,\; (y_1) = 4$

$4 - (-2) = 2(-2 - (-5))$

$6 = 2(3)$

$6 = 6$

12)

$m = ? = 2$

$(x, y) = (3, 1)\ (1, -3)$

$$m = \frac{\text{rise}}{\text{run}} = \frac{1-(-3)}{3-1} = \frac{4}{2} = 2$$

$(x_1, y_1) = (3, 1)$

$$8(-3) - 1 = 2(1-3)$$

$$-4 = -4$$

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13)

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

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

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

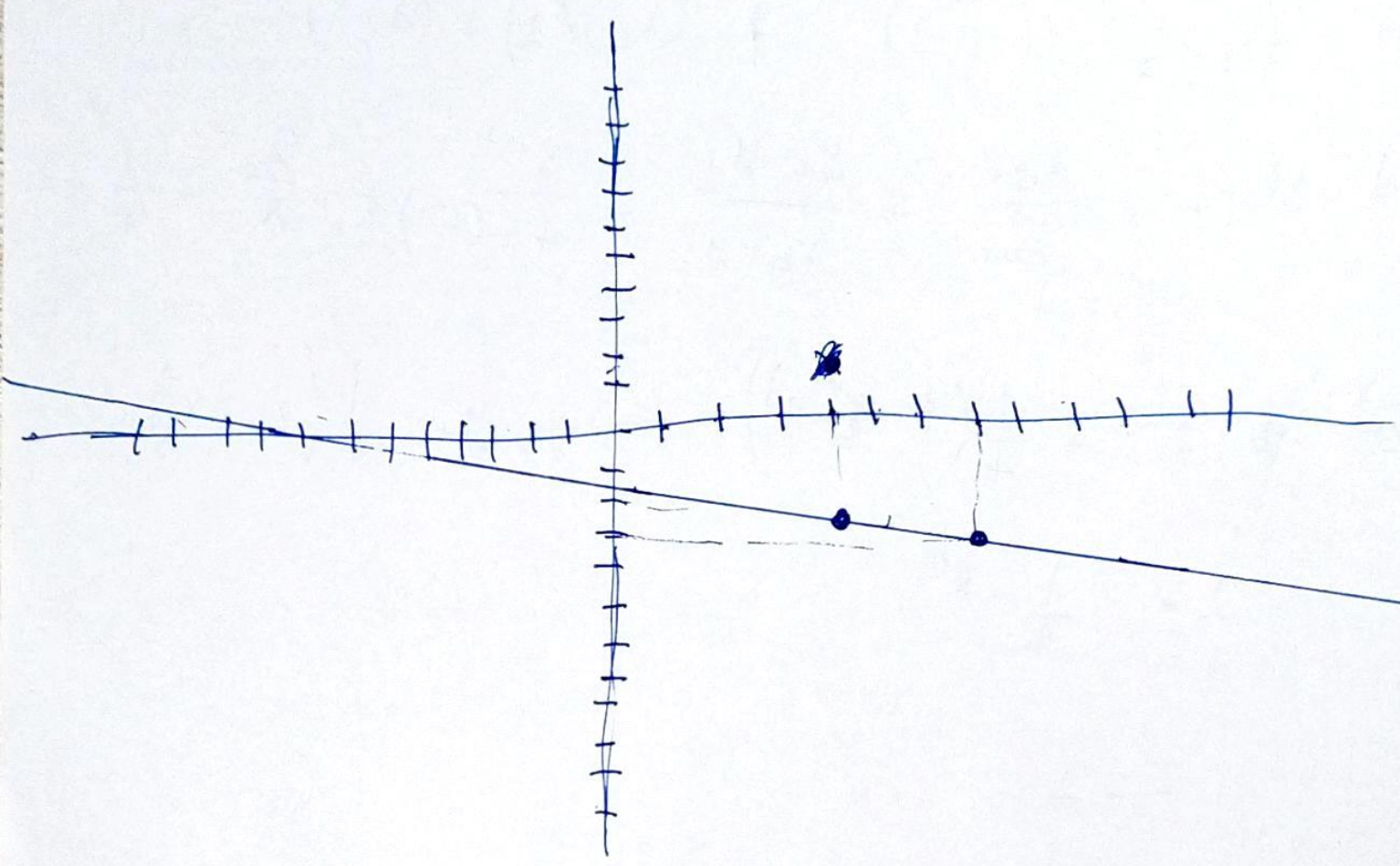
~~(x, y) ----(~~

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

$\Rightarrow$ $y = 0 - 2$

$y = -2$

Point → No we have the first



Now let $x = 7$, $y = -\frac{1}{3}(7-4) - 2$

$y = -\frac{1}{3} \cdot 3 - 2$

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14) $2y + 4 = 6x$

$2y = 6x - 4$

$y = (6x - 4)/2$

$y = 3x - 2$

15) $3x - 6y = 4$

$6y = 4 - 3x$

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

16) $V = lwh \Rightarrow lwh = V$

$w = ((V/h)/l)$

17) $(x_1, y_1) = (-4, 1)$ & $(x_2, y_2) = (4, 3)$

a) slope $= \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - y_1} = \frac{3-1}{4-(-4)} = \frac{2}{8} = \frac{1}{4}$

b) $3-1 = \frac{1}{4}(4-(-4)) \longrightarrow y_2 - y_1 = \frac{1}{4}(x_2 - x_1)$

$2 = \frac{1}{4} \cdot 8^2$

$2 = 2$

c) $y = mx + b \rightarrow 3 = \frac{1}{4} \cdot 4 + b$

$y = \frac{1}{4}x + b$

$3 = 1 + b$

$2 = b$

$b = 2$

$y = \frac{1}{4}x + 2$

d) $y - \frac{1}{4}x - 2 = 0$

$\Rightarrow 4y - x - 8 = 0$