HW: Jan 3 Answer Key

1. Complete the table below and graph the linear equation $y = 2x - 1$ on the coordinate plane.

$y = mx + b$

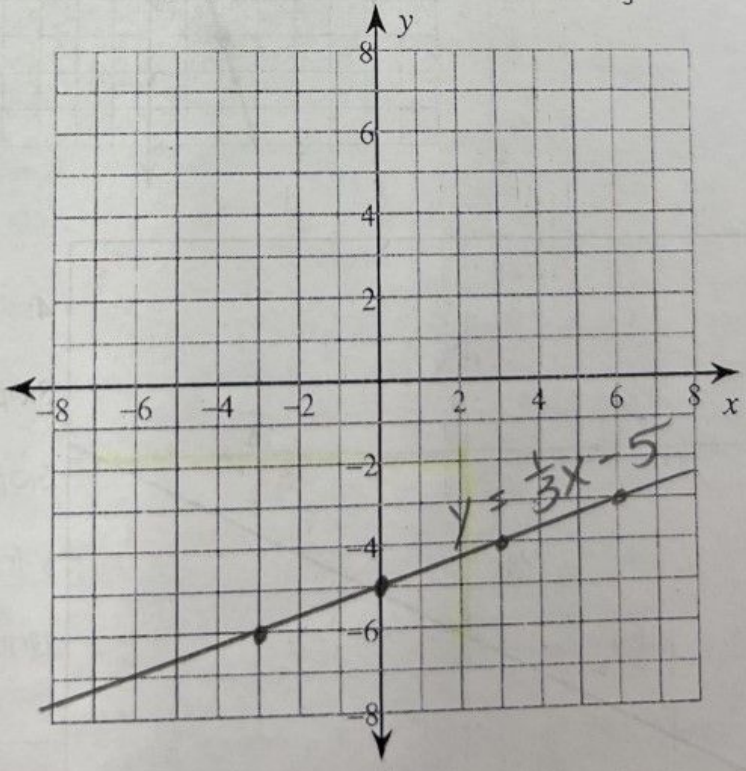| Input (x)	Output (y)
−2	−5
−1	−3
0	−1
1	1

$2(-2) - 1$
$2(-1) - 1$
$2(0) - 1$
$2(1) - 1$
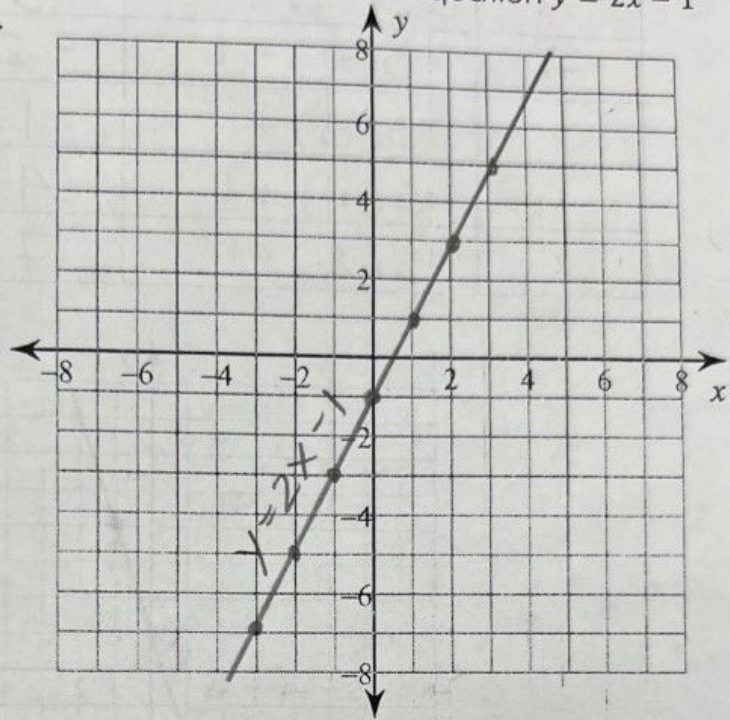
$y = mx + b$

2. Complete the table below and graph the linear equation $y = \frac{1}{3}x - 5$ on the coordinate plane.

Input (x)	Output (y)
−3	−6
0	−5
3	−4
6	−3

$\frac{1}{3}(-3) - 5$
$\frac{1}{3}(0) - 5$
$\frac{1}{3}(3) - 5$
$\frac{1}{3}(6) - 5$

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

Name: _____

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3: Graph:

Input (x)	$y = 3x + 1$	Output (y)	(x, y)
−2	$3(-2) + 1$	−5	(−2, −5)
−1	$3(-1) + 1$	−2	(−1, −2)
0	$3(0) + 1$	1	(0, 1)
1	$3(1) + 1$	4	(1, 4)
2	$3(2) + 1$	7	(2, 7)
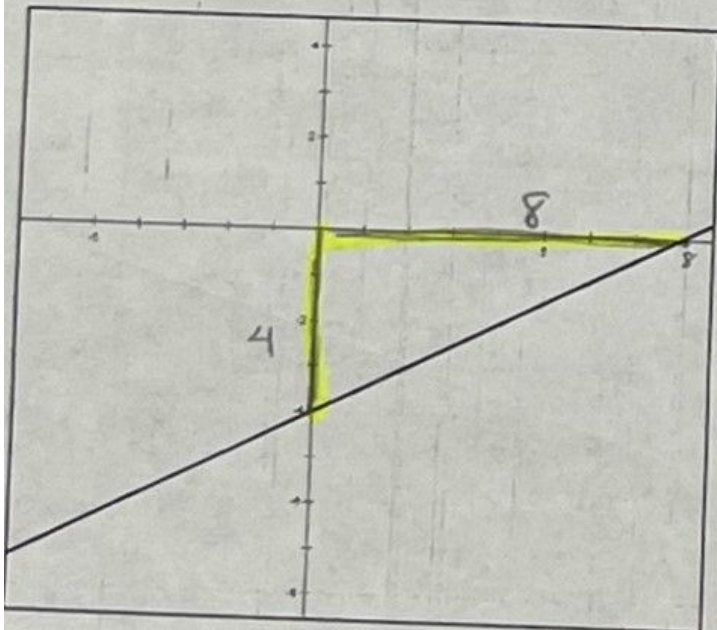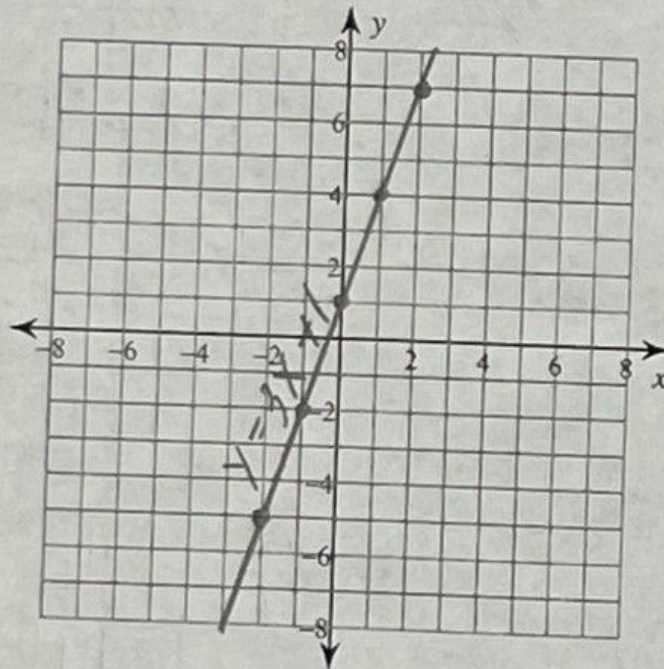
4:

Slope Type: positive
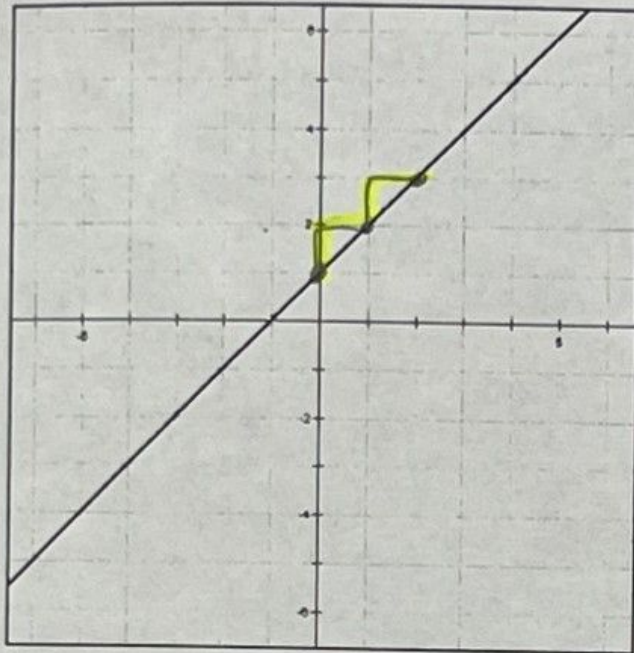
Slope (m) = $\frac{4}{8} = \frac{1}{2}$

y-intercept (b) = (0, 4)

Linear Equation:

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

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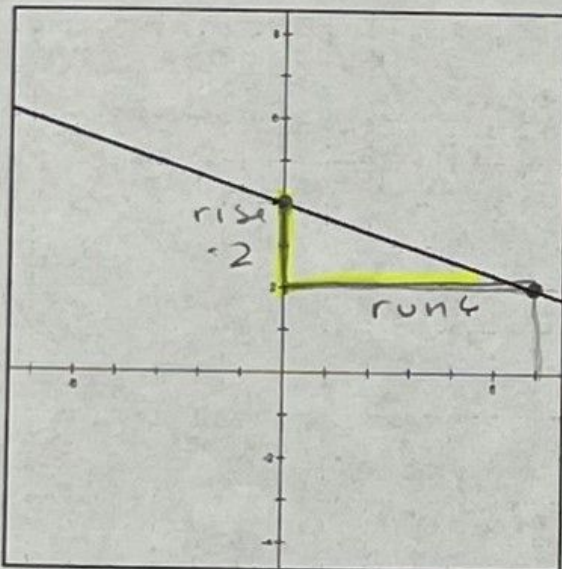
5:

Slope Type: _positive_

Slope (m) = _1_

y-intercept (b) = $(0, 1)$
                      b

Linear Equation:

$$y = 1x + 1$$
$$y = mx + b$$
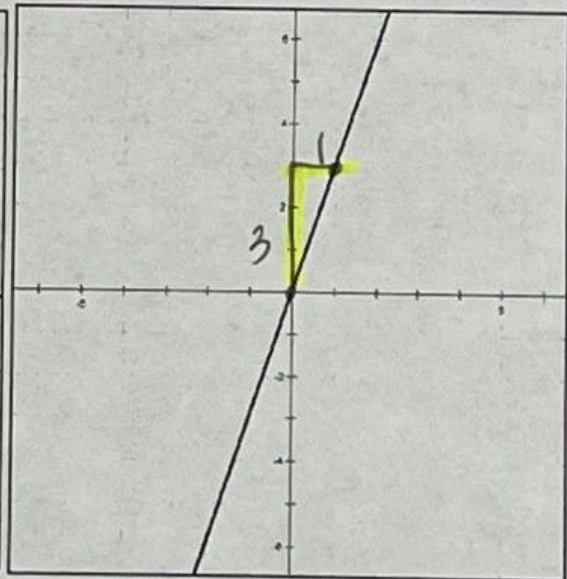
6:

rise
-2

run 6

Slope Type: _negative_

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

y-intercept (b) = $(0, 4)$

Linear Equation:

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

7:

3

Slope Type: _positive_

Slope (m) = $\frac{3}{1}$

y-intercept (b) = $(0, 0)$

Linear Equation:

$$y = 3x$$