

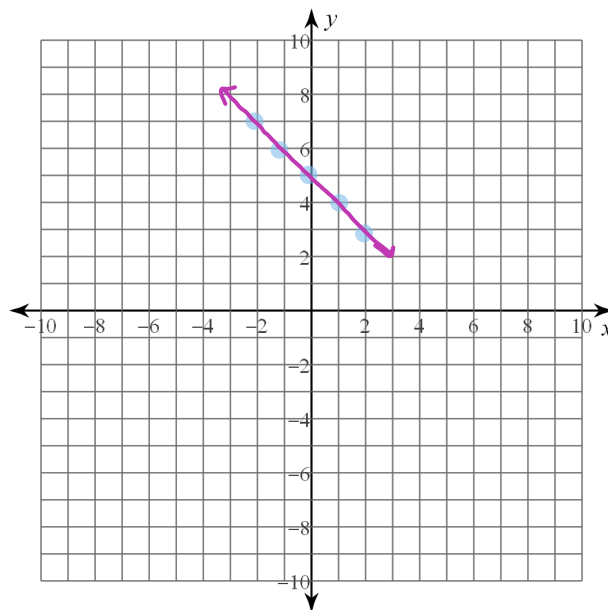
## Lesson 6.2b: Graphing Linear Relationships Part 2

Date: April 15, 2025

1.  $x + y = 5$

$y = -x + 5$

| $x$ | $y = -x + 5$    | $P(x, y)$ |
|-----|-----------------|-----------|
| -2  | $-(-2) + 5 = 7$ | $(-2, 7)$ |
| -1  | $-(-1) + 5 = 6$ | $(-1, 6)$ |
| 0   | $-0 + 5 = 5$    | $(0, 5)$  |
| 1   | $-1 + 5 = 4$    | $(1, 4)$  |
| 2   | $-2 + 5 = 3$    | $(2, 3)$  |

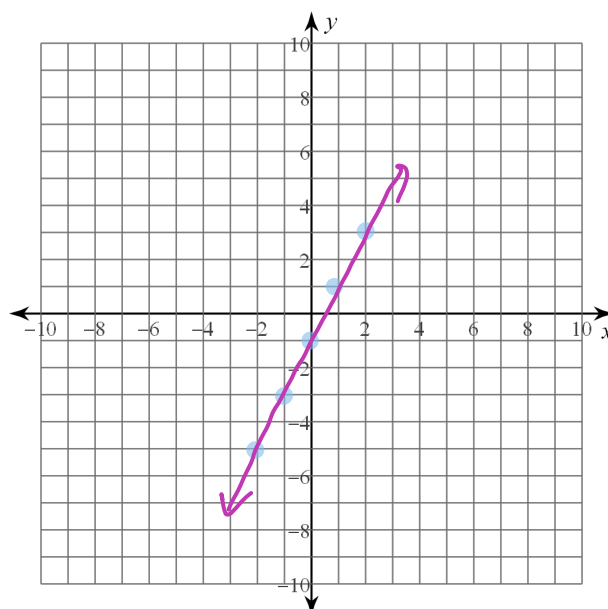


2.  $2x - y = 1$

$-y = -2x + 1$

$y = 2x - 1$

| $x$ | $y = 2x - 1$     | $P(x, y)$  |
|-----|------------------|------------|
| -2  | $2(-2) - 1 = -5$ | $(-2, -5)$ |
| -1  | $2(-1) - 1 = -3$ | $(-1, -3)$ |
| 0   | $2(0) - 1 = -1$  | $(0, -1)$  |
| 1   | $2(1) - 1 = 1$   | $(1, 1)$   |
| 2   | $2(2) - 1 = 3$   | $(2, 3)$   |

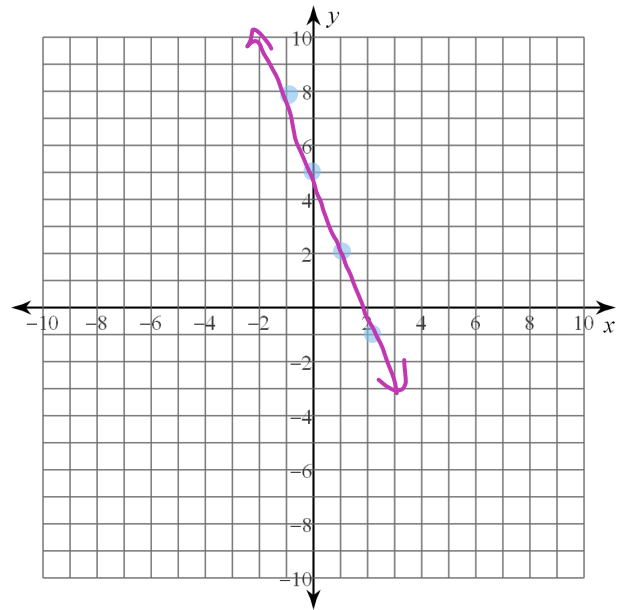


$$4 + 6x + 2y - 10 = 0$$

$$\frac{2y}{2} = \frac{-6x + 10}{2}$$

$$y = -3x + 5$$

| x  | y = -3x + 5 |          |
|----|-------------|----------|
| -2 | -3(-2) + 5  | (-2, 11) |
| -1 | -3(-1) + 5  | (-1, 8)  |
| 0  | -3(0) + 5   | (0, 5)   |
| 1  | -3(1) + 5   | (1, 2)   |
| 2  | -3(2) + 5   | (2, -1)  |

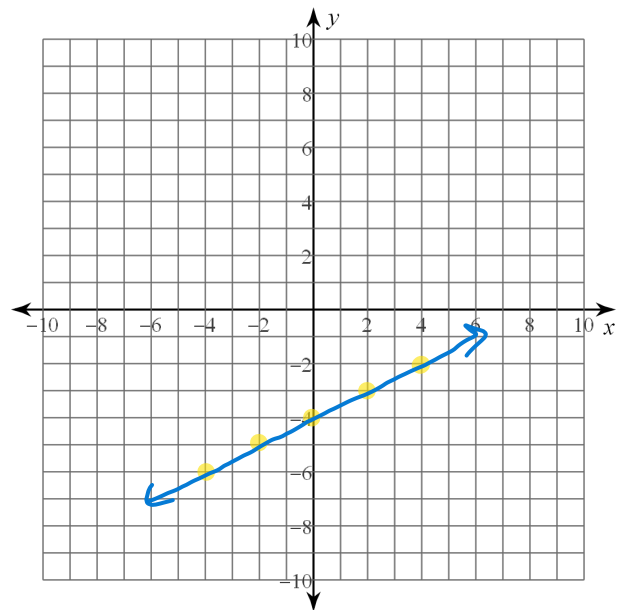


$$4) y = \frac{1}{2}x - 4$$

$$2x(-2, -1, 0, 1, 2)$$

$$= -4, -2, 0, 2, 4$$

| x  | y = $\frac{1}{2}x - 4$     | P(x, y)  |
|----|----------------------------|----------|
| -4 | $\frac{1}{2}(-4) - 4 = -6$ | (-4, -6) |
| -2 | $\frac{1}{2}(-2) - 4 = -5$ | (-2, -5) |
| 0  | $\frac{1}{2}(0) - 4 = -4$  | (0, -4)  |
| 2  | $\frac{1}{2}(2) - 4 = -3$  | (2, -3)  |
| 4  | $\frac{1}{2}(4) - 4 = -2$  | (4, -2)  |



$$5. 3x - 4y = 12$$

$$\frac{-4y}{-4} = \frac{-3x + 12}{-4}$$

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

$$(-2, -1, 0, 1, 2)$$

| $x$ | $y = \frac{3}{4}x - 3$              | $P(x, y)$  |
|-----|-------------------------------------|------------|
| -8  | $\frac{3}{4}(-8) - 3 = -6 - 3 = -9$ | $(-8, -9)$ |
| -4  | $\frac{3}{4}(-4) - 3 = -3 - 3 = -6$ | $(-4, -6)$ |
| 0   | $\frac{3}{4}(0) - 3 = -3$           | $(0, -3)$  |
| 4   | $\frac{3}{4}(4) - 3 = 0$            | $(4, 0)$   |
| 8   | $\frac{3}{4}(8) - 3 = 3$            | $(8, 3)$   |

