

ALGEBRA IA ~ Q3 QUIZ 4 ~ SOLUTIONS

① Relation: **A SET OF ORDERED PAIRS**

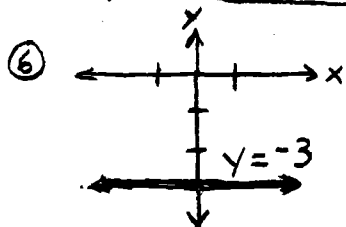
Domain: **the first value in a SET OF ORDERED PAIRS, the "X" VALUES.**

② $(-, -)$ Quadrant: **QUADRANT III**

③ **INTERCEPT**

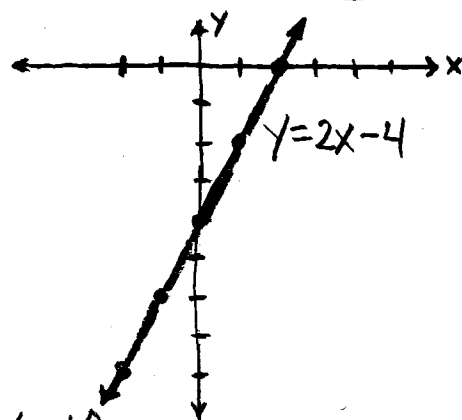
④ $(0, 0)$: **ORIGIN**

⑤ A: **(2, 1)** B: **(-1, 3)** C: **(-3, -1)** D: **(2, -3)** E: **(5, 0)**



⑦

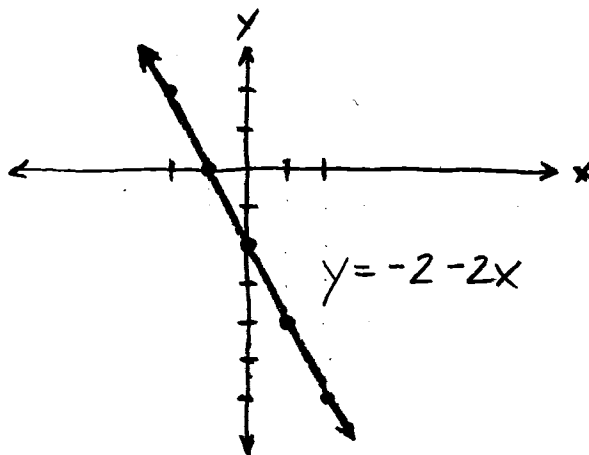
| X | Y = 2X - 4 | (X, Y) |
|----|------------------------------------|------------|
| -2 | $Y = 2(-2) - 4$ $= -4 - 4 = -8$ | $(-2, -8)$ |
| -1 | $Y = 2(-1) - 4 = -6$ | $(-1, -6)$ |
| 0 | $Y = -4$ | $(0, -4)$ |
| 1 | $Y = 2(1) - 4 = -2$ | $(1, -2)$ |
| 2 | $Y = 2(2) - 4 = 0$ | $(2, 0)$ |



⑧ $2x + y = -2$ Solve for Y \Rightarrow Get y by itself.

$$\begin{array}{r} 2x + y = -2 \\ -2x \quad \quad -2x \\ \hline y = -2 - 2x \end{array}$$

| X | Y = -2 - 2X | (X, Y) |
|----|------------------------------------|-----------|
| -2 | $Y = -2 - 2(-2)$ $= -2 + 4 = 2$ | $(-2, 2)$ |
| -1 | $Y = -2 - 2(-1)$ $= -2 + 2 = 0$ | $(-1, 0)$ |
| 0 | $Y = -2$ | $(0, -2)$ |
| 1 | $Y = -2 - 2(1) = -4$ | $(1, -4)$ |
| 2 | $Y = -2 - 2(2) = -6$ | $(2, -6)$ |



⑨ $6x - 2y = 12$

X-intercept, $y = 0$

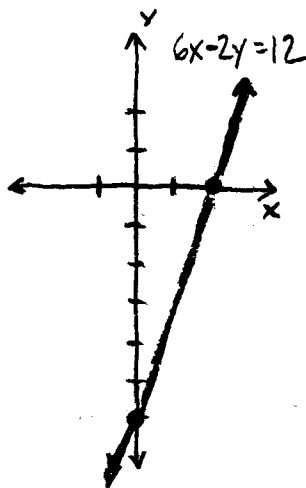
$$\begin{array}{r} 6x - 2(0) = 12 \\ 6x = 12 \\ \frac{6x}{6} = \frac{12}{6} \end{array}$$

Line crosses X-axis at the point $(2, 0)$

Y-intercept, $x = 0$

$$\begin{array}{r} 6(0) - 2y = 12 \\ -2y = 12 \\ \frac{-2y}{-2} = \frac{12}{-2} \end{array}$$

Line crosses Y-axis at the point $(0, -6)$

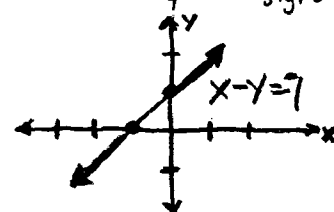


⑩ $x - y = -1$

X-int, $y = 0$ Y-int, $x = 0$

$$\begin{array}{r} x - (0) = -1 \\ x = -1 \end{array}$$

$$\begin{array}{r} 0 - y = -1 \\ -y = -1 \\ \text{CHANGE ALL SIGNS} \\ y = 1 \end{array}$$



⑪ $2y = -4x + 3$

$$\begin{array}{r} 2y = -4x + 3 \\ +4x \quad \quad +4x \\ \hline 4x + 2y = 3 \end{array}$$

$Ax + By = C$ ✓

⑫ $x + 4 = y - 3$

$$\begin{array}{r} x + 4 = y - 3 \\ -y - 4 \quad -y - 4 \\ \hline x - y = -7 \end{array}$$

$Ax + By = C$ ✓

SUBTRACT y AND SUBTRACT 4 from both sides.