# DO NOW

The $x$-coordinate for an ordered pair in the solution set of $x + 2y = 11$ is 3. Find the $y$-coordinate.

$x + 2y = 11$
$3 + 2y = 11$
$2y = 11 - 3$
$2y = 8$
$y = \frac{8}{2}$
$\boxed{y = 4}$

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## 3.1 Graphing Linear Equations

Graphing Procedure:

1. Transform the equation to "y =" form. (Solve for y.)
2. Find 3 solutions using a chart. (This is not a check chart.)
3. Graph and label all ordered pairs.
4. Draw and label the line.
   - Draw: use a straightedge
   - label: with the original equation

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Example: ***Solve for y in terms of x.*** (using)

1. $4x - y = 6$
   $-y = 6 - 4x$
   $y = \frac{6-4x}{-1}$
   $\boxed{y = -6 + 4x}$

2. $6x - 3y = 5$
   $-3y = 5 - 6x$
   $y = \frac{5-6x}{-3}$
   $y = \frac{5}{-3} - \frac{6x}{-3}$
   $\boxed{y = -\frac{5}{3} + 2x}$

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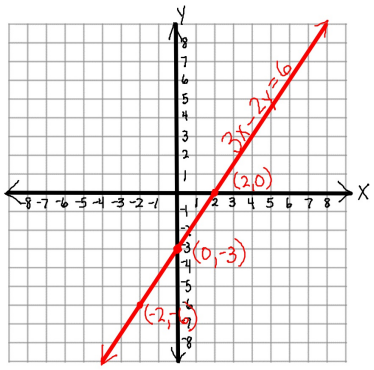
***Graph:*** $3x - 2y = 6$

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

| x | $-3 + \frac{3}{2}x$ | y | (x,y) |
|---|---|---|---|
| -2 | $-3 + \frac{3}{2}(-2)$ | -6 | (-2,-6) |
| 0 | $-3 + \frac{3}{2}(0)$ | -3 | (0,-3) |
| 2 | $-3 + \frac{3}{2}(2)$ | 0 | (2,0) |




x-intercept: (2,0)
y-intercept: (0,-3)

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# HOMEWORK

Worksheet - HW 3.1 Graphing Lines - Day 2

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