

DO NOW

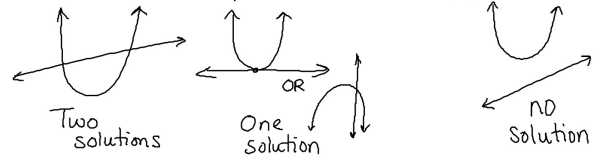
Graph $y = x^2 - 6x + 8$

X	Y
0	8
1	3
2	0
3	-1
4	0
5	3
6	8

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8.10 Graphing Quadratic-Linear Systems

***Solve a system - points of intersection



- Procedure:
1. Graph the parabola. (calculator; table)
 2. Graph the line. ($y = mx + b$; $m =$; $b =$)
 3. Identify the points of intersection.

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Solve the system:

1. $y = x^2 + 2x + 1$
 $y = 2x + 5$

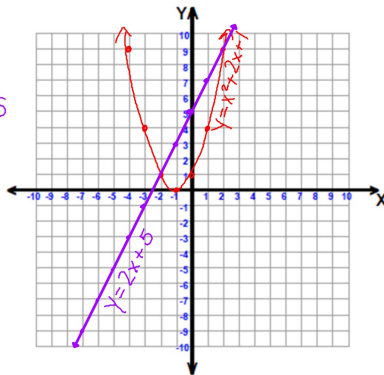
$$y = x^2 + 2x + 1$$

$$y = 2x + 5$$

$m = \frac{2}{1}$
 $b = 5$

X	Y
-4	9
-3	4
-2	1
-1	0
0	1
1	4
2	9

$(-2, 1)$ and $(2, 9)$



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2. $y = x^2 + 4x + 3$
 $y = -1$

$$y = x^2 + 4x + 3$$

$$y = -1$$

horizontal

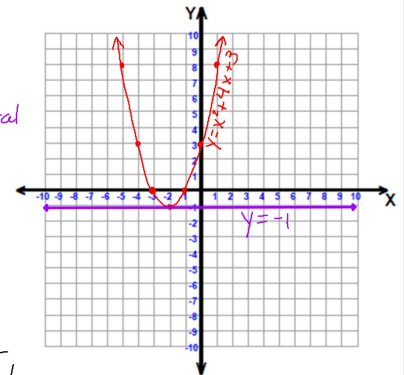
X	Y
-5	8
-4	3
-3	0
-2	-1
-1	0
0	3
1	8

$(-2, -1)$

Check:

$$\begin{array}{r|l} y & x^2 + 4x + 3 \\ -1 & (-2)^2 + 4(-2) + 3 \\ -1 & 4 - 8 + 3 \\ -1 & -4 + 3 \\ -1 & -1 \checkmark \end{array}$$

$$\begin{array}{r|l} y & -1 \\ -1 & -1 \checkmark \end{array}$$



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HOMEWORK

Worksheet - HW 8.10

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