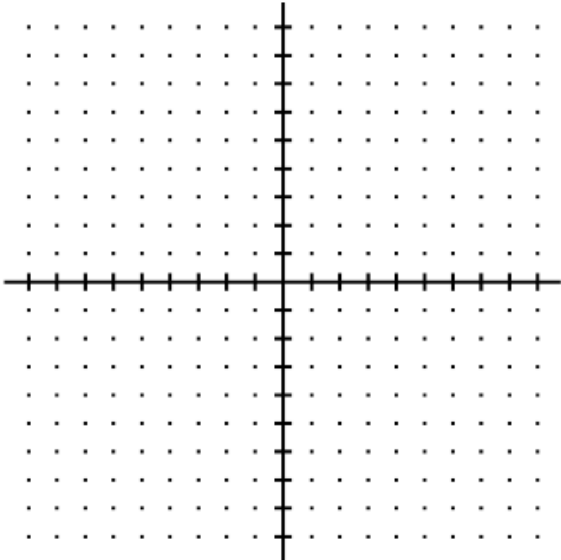


AGENDA

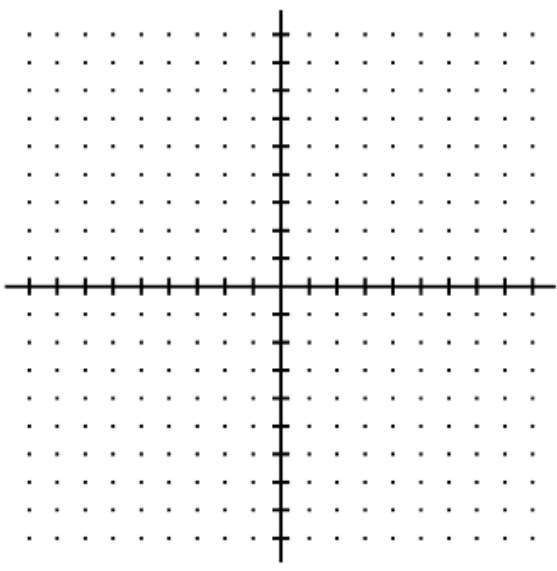
- 1) Take out HW to be checked
- 2) DEMO: Complete the square
to Graph a PARABOLA
- 4) STATIONS: Complete the square
to Graph a PARABOLA
- 5) Exit Ticket: Complete the square
to Graph a PARABOLA

HW: Completing the Square Worksheet 2

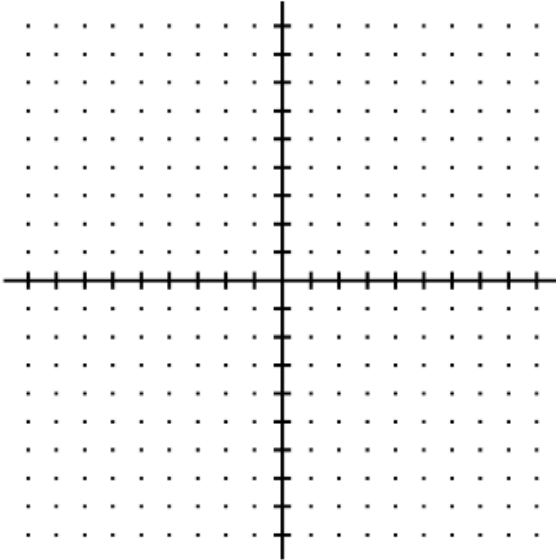
LINKS DEMO: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 - 10x + 3$</p> <p>2) Solve for the roots. Plot the roots</p>	<p>3) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>4) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

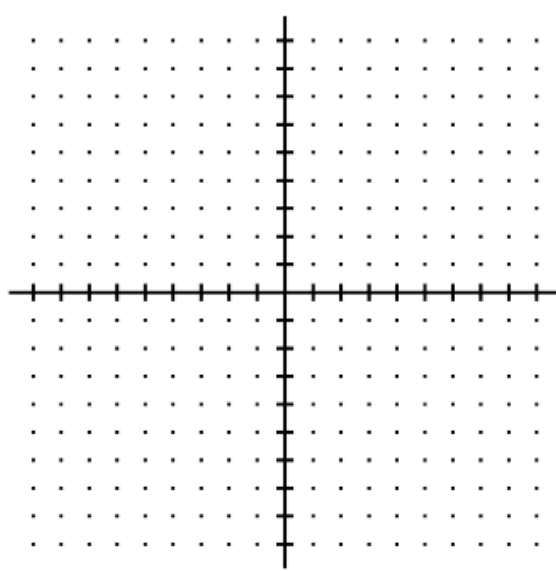
LINKS 1: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 - 6x - 7$</p> <p>2) Solve for the roots. Plot the roots</p>	<p>3) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>4) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

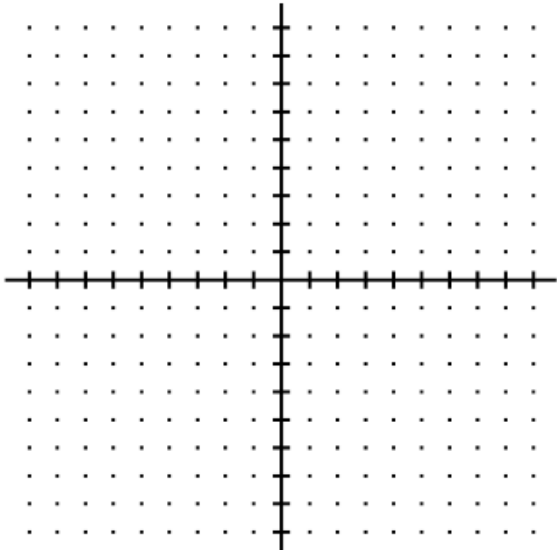
LINKS 2: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 - 10x + 16$</p> <p>1) Solve for the roots. Plot the roots</p>	<p>2) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>3) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

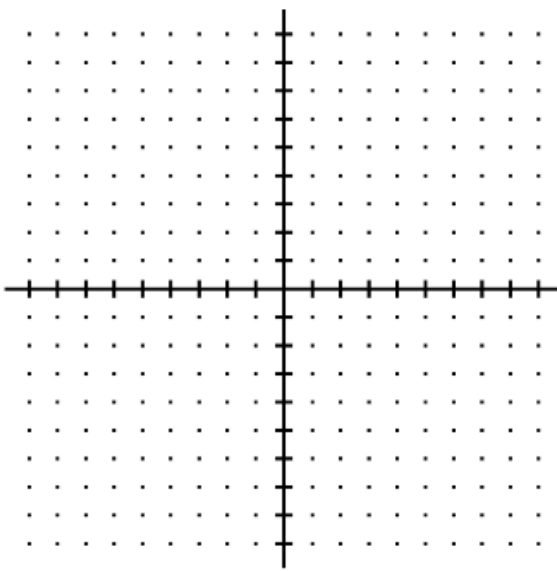
LINKS 3: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 - 4x + 3$</p> <p>2) Solve for the roots. Plot the roots</p>	<p>3) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>4) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

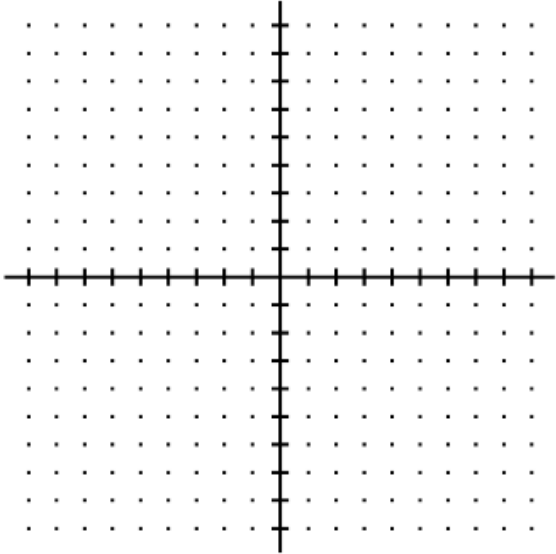
LINKS 4: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 + 14x + 45$</p> <p>1) Solve for the roots. Plot the roots</p>	<p>2) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>3) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

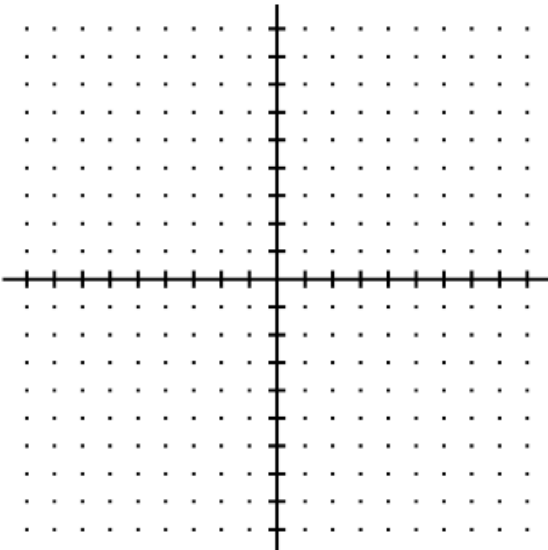
LINKS 6: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 + 4x$</p> <p>1) Solve for the roots. Plot the roots</p>	<p>2) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>3) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

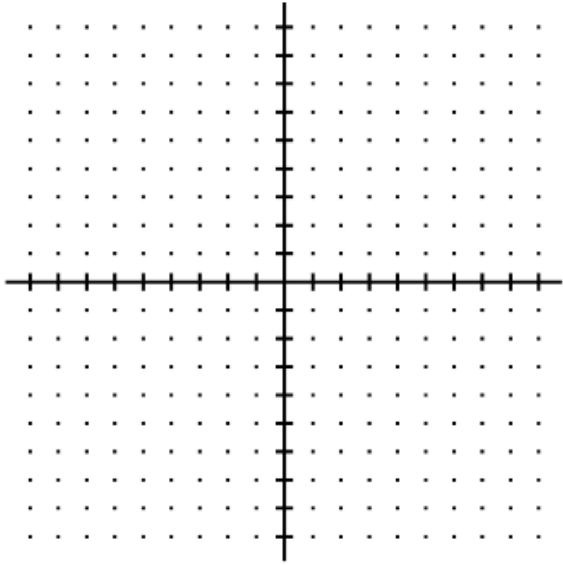
LINKS 5: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 + 4x - 5$</p> <p>1) Solve for the roots. Plot the roots</p>	<p>2) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>3) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

LINKS 8: Graphing a Parabola by **Completing the Square**

<p>1) Set equation =0. Complete the square. And Factor. $y = x^2 - x - 6$</p> <p>1) Solve for the roots. Plot the roots</p>	<p>2) Find the axis of symmetry. $x = \underline{\quad}$</p> <p>3) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

LINKS 7: Graphing a Parabola by **Completing the Square**

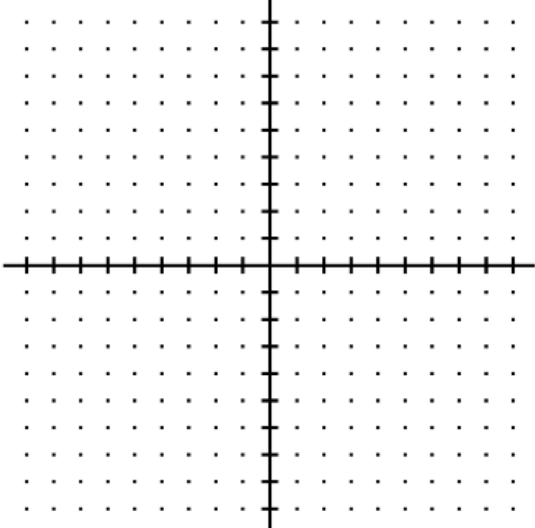
<p>1) Set equation =0. Complete the square. And Factor. $y = 2x^2 - 6x$</p> <p>1) Solve for the roots. Plot the roots</p>	<p>2) Find the axis of symmetry. $x = \underline{\hspace{2cm}}$</p> <p>3) Find vertex. Plot vertex.</p>
<p>5) Plot y intercept.</p> <p>6) Plot symmetrical point.</p> <p>7) Check- should your graph open up or down?</p>	<p style="text-align: center;">Graph</p> 

_____/ 5

Name _____

Exit Ticket

Block _____

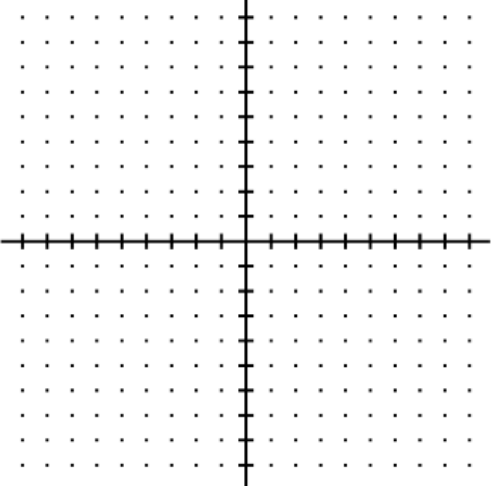
<p>1) Complete the square to solve for the roots.</p> $y = x^2 + 14x + 40$	<p>2) Plot the roots</p> 
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_____/ 5

Name _____

Exit Ticket

Block _____

<p>1) Complete the square to solve for the roots.</p> $y = x^2 + 16x + 39$	<p>2) Plot the roots</p> 
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Block: _____

Name: _____

Completing the Square Worksheet 2**Solve each equation by completing the square.**

1) $p^2 + 14p - 38 = 0$

2) $v^2 + 6v - 59 = 0$

3) $a^2 + 14a - 51 = 0$

4) $x^2 - 12x + 11 = 0$

5) $x^2 + 6x + 8 = 0$

6) $n^2 - 2n - 3 = 0$

Completing the Square Worksheet 2 Continued...

7) $x^2 + 14x - 15 = 0$

8) $k^2 - 12k + 23 = 0$

9) $r^2 - 4r - 91 = 7$

10) $x^2 - 10x + 26 = 8$

- 11) Graph number 7: ($x^2 + 14x - 15 = 0$) on the grid below:
Indicate the **roots**, **vertex**, **y-intercept**, and **symmetrical point**.
You WILL have to change the scale. Indicate the scale on the axis.

