

NOTES: Section 9.5 – Solving Quadratic Equations by Graphing

Goals: #1 - I can use a graph to find or check a solution of a quadratic equation.

Homework: Section 9.5 Worksheet



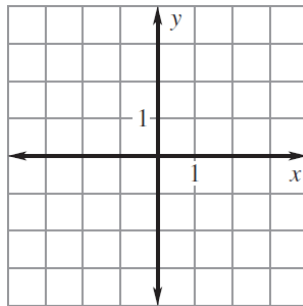
Warm Up: Graph the function by completing the table. Identify the graph's axis of symmetry (AOS), vertex, and tell whether the graph opens up or down.

1. $y = 3x^2$

AOS: _____

vertex: _____

opens: _____

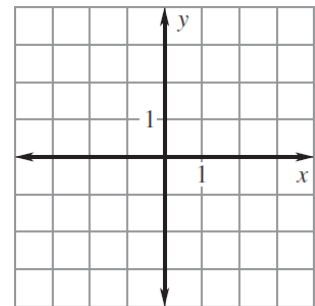


2. $y = -2x^2 - 2x + 3$

AOS: _____

vertex: _____

opens: _____

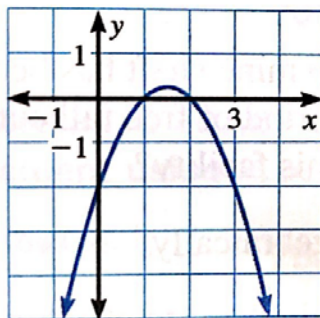


x					
y					

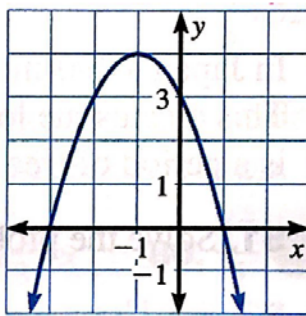
x					
y					

Example #1: Use the graph to identify the x -intercepts of the quadratic function.

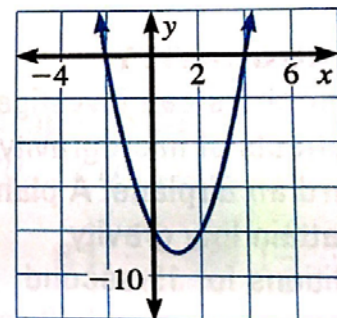
1.



2.



3.



Name: _____ Hour: _____ Date: _____

Notes:

We can _____ certain quadratic equations by _____.

- _____:
- _____:

Step 1: Set the _____ equation equal to _____.

Step 2: Graph the _____ function.

Step 3: Look for _____:

Example #2: Solve the following equations by graphing.

1. $0 = -x^2 + 4$

2. $x^2 - 3x = 4$

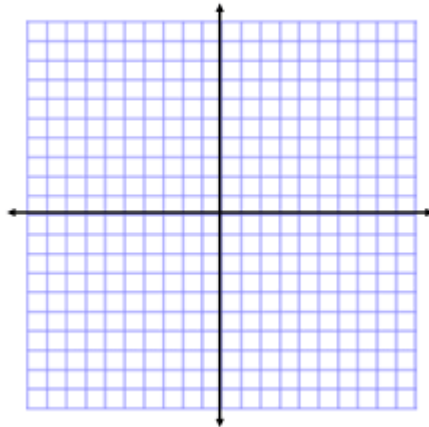
AOS: _____

vertex: _____

y-int: _____

opens: _____

solution/s: _____



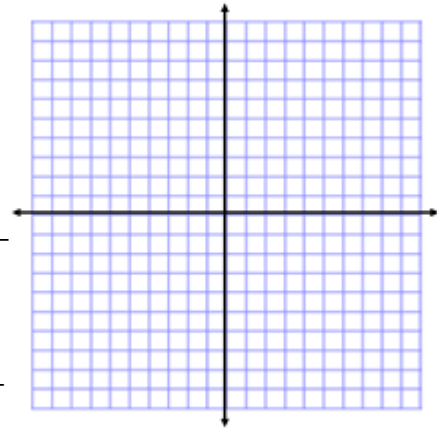
AOS: _____

vertex: _____

y-int: _____

opens: _____

solution/s: _____



x					
y					

x					
y					

Check your solution:

Name: _____ Hour: _____ Date: _____

You practice: Solve the following equations by graphing.

1. $x^2 + 4x = 5$

2. $-x^2 + 7x = 10$

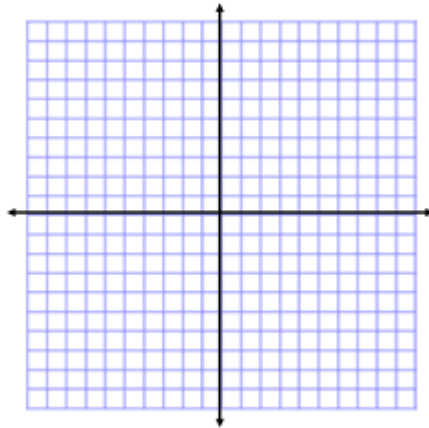
AOS: _____

vertex: _____

y-int: _____

opens: _____

solution/s: _____



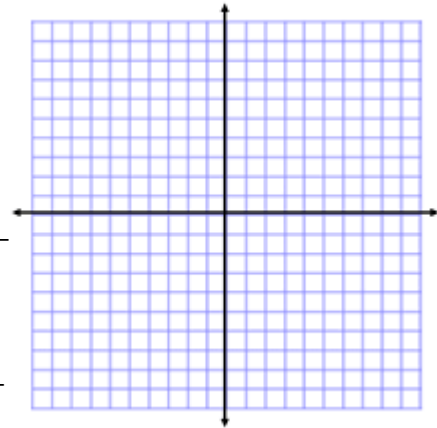
AOS: _____

vertex: _____

y-int: _____

opens: _____

solution/s: _____



x					
y					

x					
y					

Check your solution: