






Name: _____

Date: _____

UNIT 9






LESSON 3.5

Do Now: Is the dotted line on each letter a line of symmetry? Write yes or no

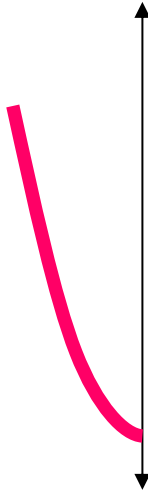
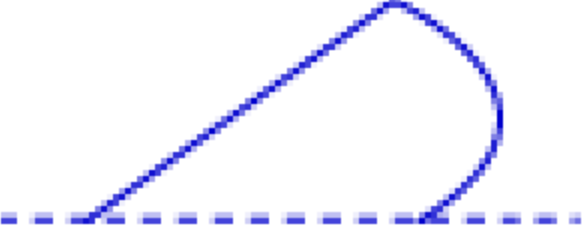
1. 	2. 	3. 	4. 	5. 
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AIM: AXIS OF SYMMETRY

Draw the line of symmetry. Some letters have more than one line of symmetry.

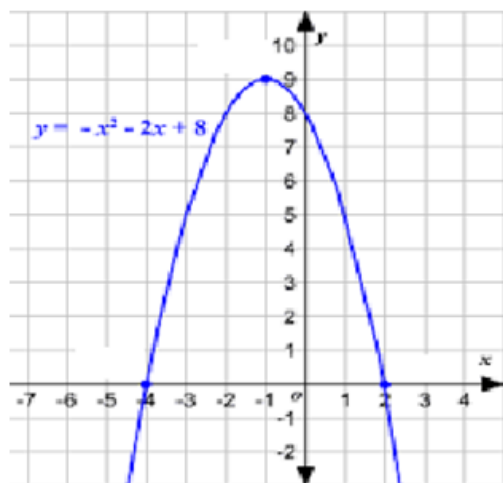
6. 	7. 	8. 	9. 	10. 
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Directions: Using your mira, draw the reflection of the figure across the given reflection line.

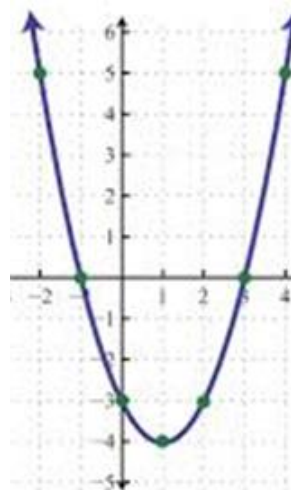
11. 	12. 
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Directions: Using your mira, draw the line of reflection. Label your line of reflection

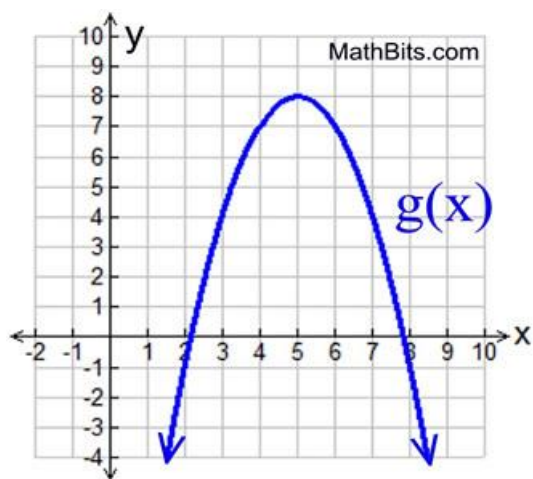
13.



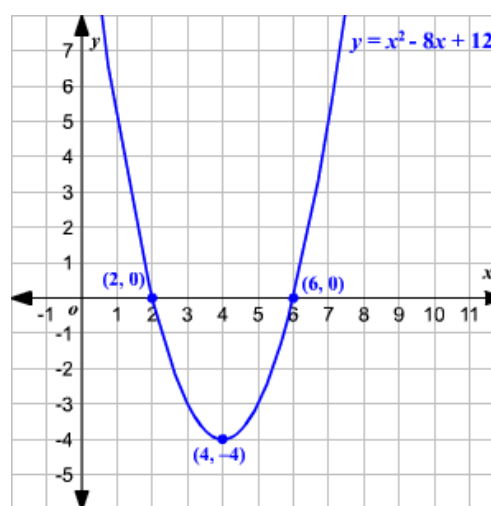
14.



15.



16.



Directions: For the following quadratic function determine the axis of symmetry.

Step 1: Identify the a-value and b-value.

Step 2: Use the axis of symmetry formula:

$$x = \frac{-b}{2a}$$

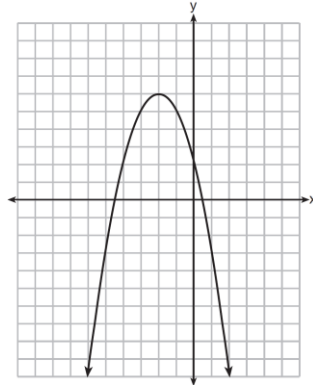
17. $y = x^2 - 8x + 7$

18. $y = -x^2 + 4x - 9$

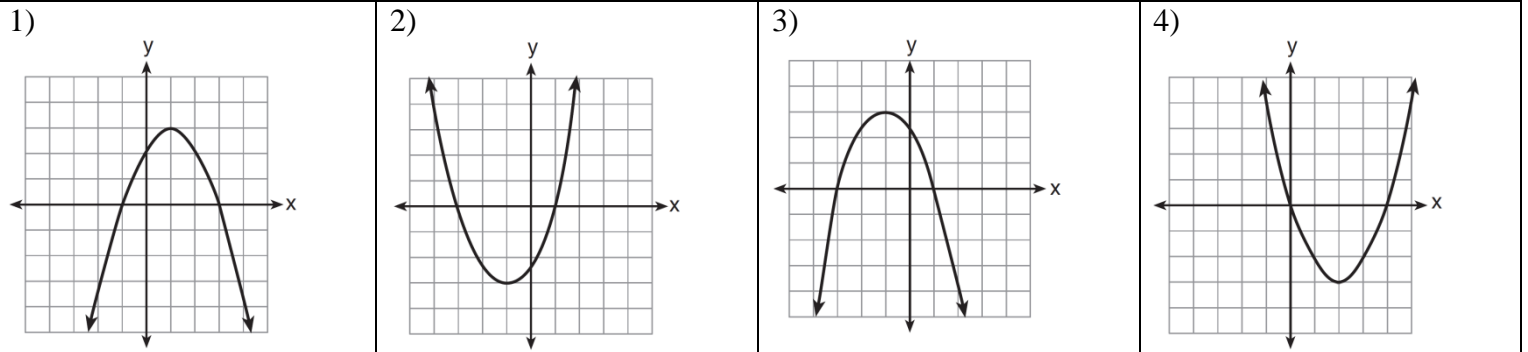
19. $f(x) = 2x^2 - 7x + 2$

20. $y = -x^2 + 4$

21. What are the vertex and the axis of symmetry of the parabola shown in the graph below?



22. Which parabola has an axis of symmetry of $x = 1$?



Directions: For the following quadratic function determine the axis of symmetry.

23. $h = -8t^2 + 40t + 5$

24. $h(x) = -\frac{1}{225}x^2 + \frac{2}{3}x$

25. Given : $x^2 - 9 = 0$

a) Find the roots of the given equation algebraically

b) Identify the roots.

c) Identify the y-intercept.

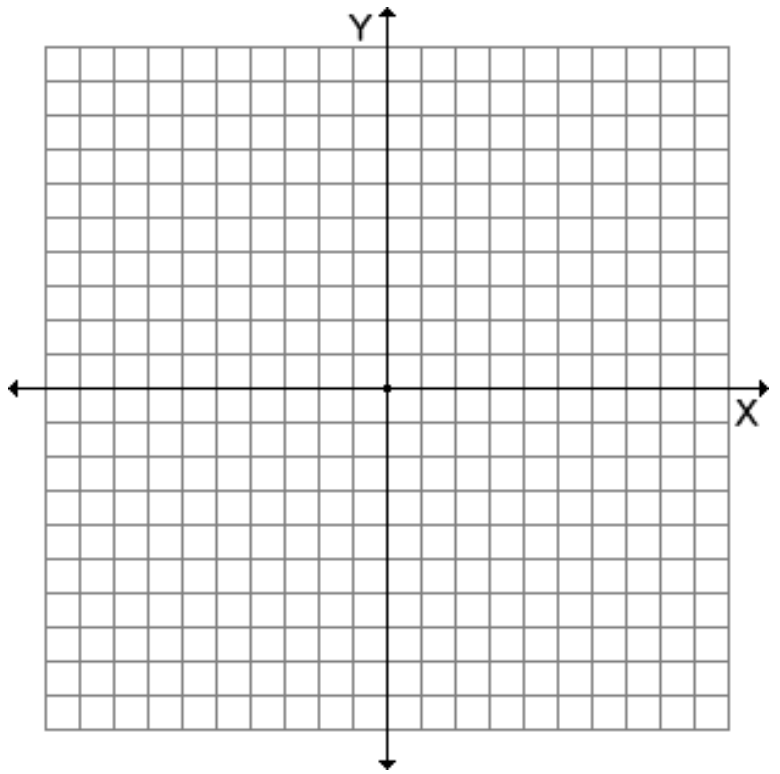
d) Does the parabola have a maximum or minimum point?

e) Identify the Turning Point.

f) Identify the Axis of Symmetry.

g) For which interval is quadratic function increasing?

h) For which interval is quadratic function decreasing?



HW# _____

1. Graph the function $y = x^2 - 8x + 7 ; \{1 \leq x \leq 7\}$

a) Determine the direction the parabola.

x	y

b) Identify the minimum point.

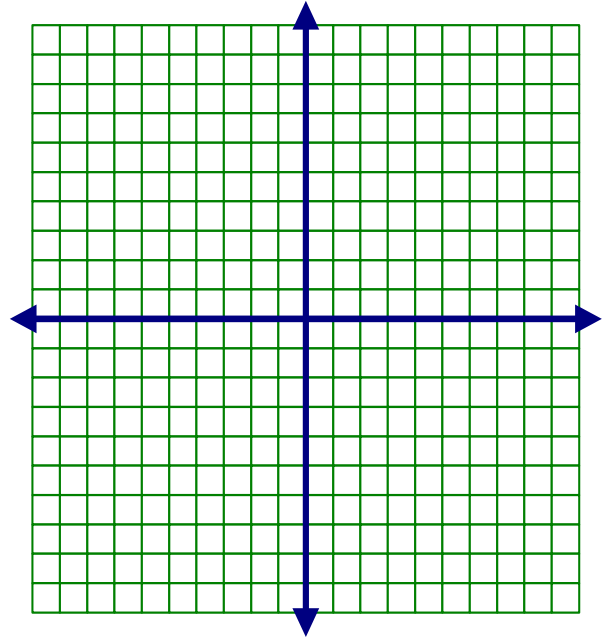
c) What is Axis of Symmetry?

d) Identify the x-intercepts.

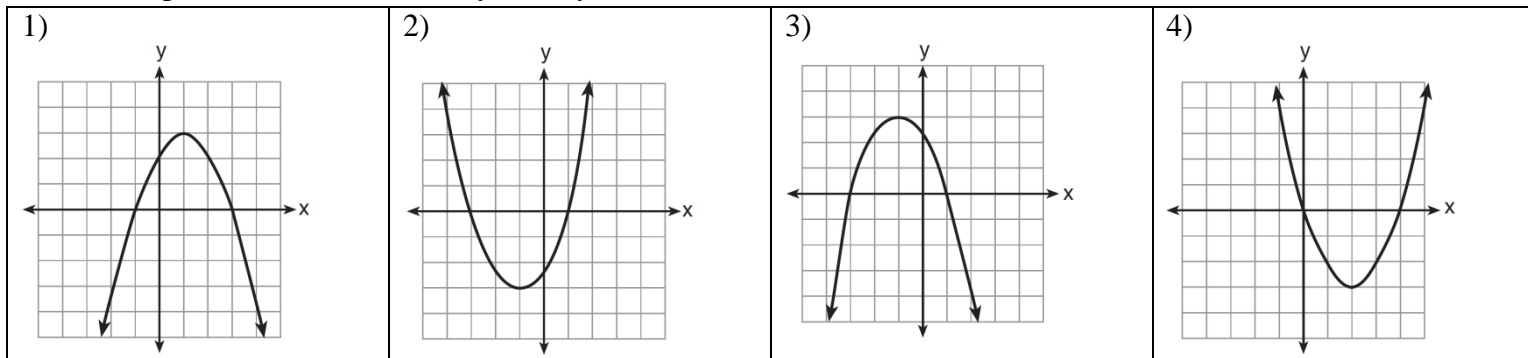
e) Identify the y-intercept.

f) What is the domain in set builder notation?

g) What is the range in set builder notation?



2. Which parabola has an axis of symmetry of $x = 2$?



Directions: For the following quadratic function determine the axis of symmetry.

3. $f(x) = -x^2 + 10x + 2$	4. $f(x) = 5x^2 + 2$	5. $f(x) = 4x^2 - 6x + 2$
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DON'T FORGET TEXTBOOK HW!!!