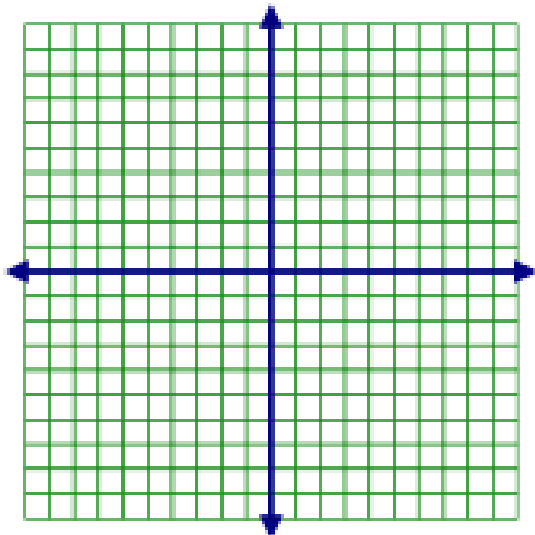


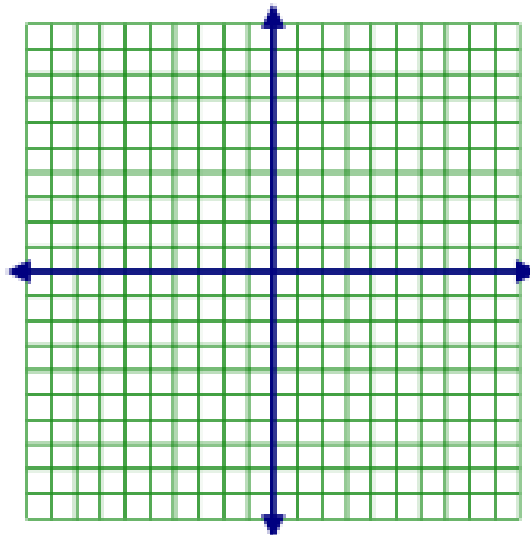
Do Now: QUIZ

AIM: GRAPHING PARABOLAS IN VERTEX FORM

1. Graph $f(x) = (x-3)^2 + 2$ Vertex: _____



2. Graph $f(x) = (x+1)^2 - 4$ Vertex: _____



3. Graph $f(x) = 2(x-2)^2 - 1$

- a) Vertex: _____
 b) Describe the transformation:

4. Graph $f(x) = -(x+3)^2 - 2$

- a) Vertex: _____
 b) Describe the transformation:

STANDARD FORM:

VERTEX FORM:

Directions: Without graphing, state the vertex for each of the following quadratic equations:

5. $y = 2(x-5)^2 + 3$

6. $y = -(x-7)^2$

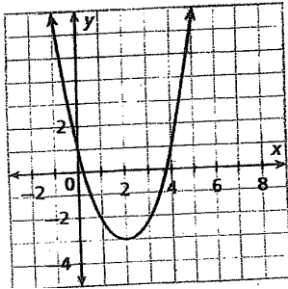
Directions: Write a quadratic equation, in vertex form, whose graph will have the given turning point:

7. $(1, -4)$

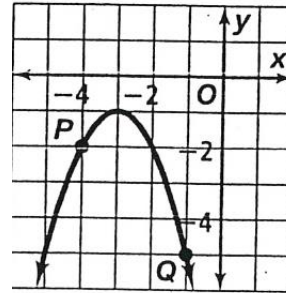
8. $(-3, 5)$

Directions: Write a rule (in vertex form) for the quadratic function whose graph is show below:

9.



10.



PRACTICE PROBLEMS:

Directions: Without graphing, state the vertex for each of the following quadratic equations:

11. $f(x) = x^2 - 6$

12. $y = 3(x+2)^2 + 4$

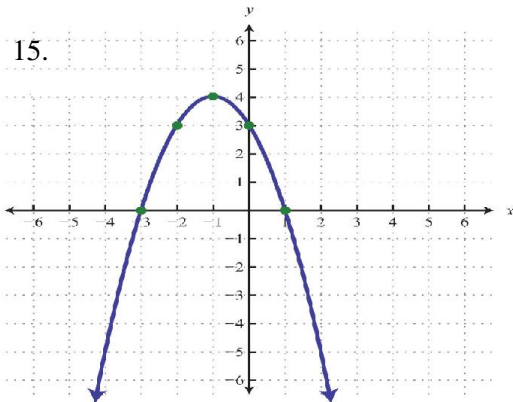
Directions: Write a quadratic equation, in vertex, form whose graph will have the given turning point:

13. $(-2, 5)$

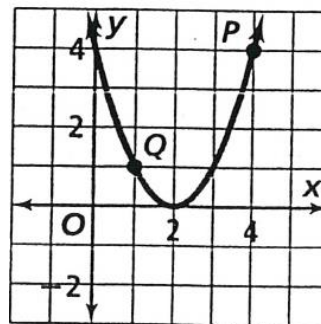
14. $(6, -8)$

Directions: Write a rule (in vertex form) for the quadratic function whose graph is show below:

15.



16.



UNIT 9**LESSON 6**

HW# _____

Directions: Without graphing, state the vertex for each of the following quadratic equations:

1. $f(x) = -2(x - 4)^2 + 6$

2. $f(x) = -(x + 4)^2 - 9$

3. $f(x) = x^2 + 10$

Directions write a quadratic equation, in vertex form, whose graph will have the given vertex:

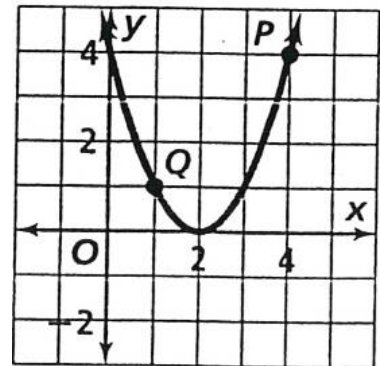
4. $(4, -6)$

5. $(-9, 0)$

6. $(0, 5)$

7. Write the equation of the graph below in:

a) standard form



b) vertex form

8. Find the vertex of $y = x^2 - 2x + 8$ algebraically.

TURN OVER



9. What is the solution set of $(x + 3)(2x - 1) = 0$?

10. The square of a positive number is 42 more than the number itself. Find the number algebraically.

Let $x =$ the #

DON'T FORGET TEXTBOOK!