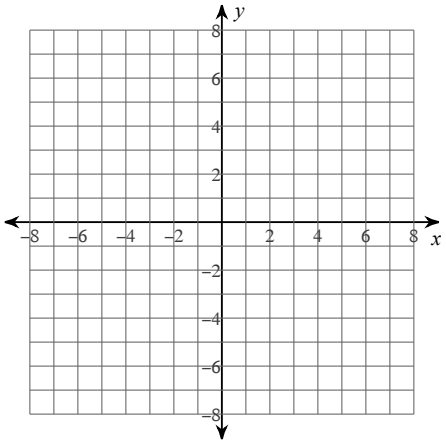
Secondary Math 2 Name_____

Unit 5 Graphing Quadratics Review

Date_____ Period____

Graph the function and identify the key features. Approximate where necessary.

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



2) a. x-intercept(s):

b. y-intercept:

c. axis of symmetry:

d. vertex:

e. Max/Min Value:

f. x-value that max/min the function:

g. Domain: h. Range:

j. Increasing: k. Decreasing:

l. Positive: m. Negative:

n. End behavior:

3) a. x-intercept(s):

b. y-intercept:

c. axis of symmetry:

d. vertex:

e. Max/Min Value:

f. x-value that max/min the function:

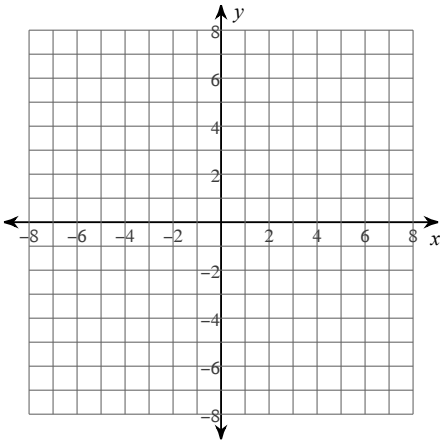
g. Domain: h. Range:

j. Increasing: k. Decreasing:

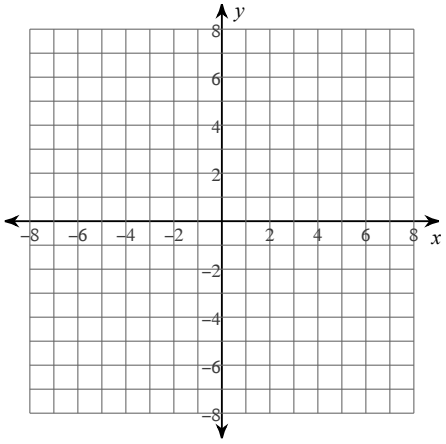
l. Positive: m. Negative:

n. End behavior:

4) $y = -2(x - 2)^2 + 8$



5) $y = -(x + 3)(x - 1)$



6) a. x-intercept(s):

b. y-intercept:

c. axis of symmetry:

d. vertex:

e. Max/Min Value:

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n. End behavior:

7) a. x-intercept(s):

b. y-intercept:

c. axis of symmetry:

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e. Max/Min Value:

f. x-value that max/min the function:

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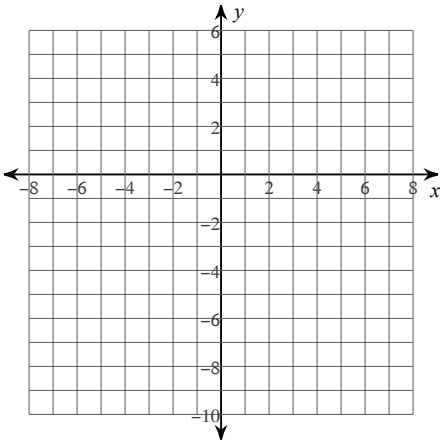
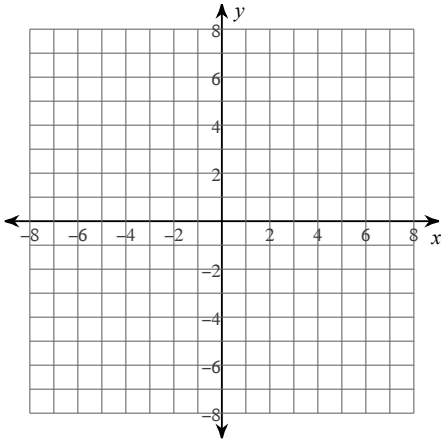
n. End behavior:

8) $y = (x + 4)(x - 2)$



9) $y = x^2 - 2x - 3$



10) a. x-intercept(s):

b. y-intercept:

c. axis of symmetry:

d. vertex:

e. Max/Min Value:

f. x-value that max/min the function:

g. Domain: h. Range:

j. Increasing: k. Decreasing:

l. Positive: m. Negative:

n. End behavior:

11) a. x-intercept(s):

b. y-intercept:

c. axis of symmetry:

d. vertex:

e. Max/Min Value:

f. x-value that max/min the function:

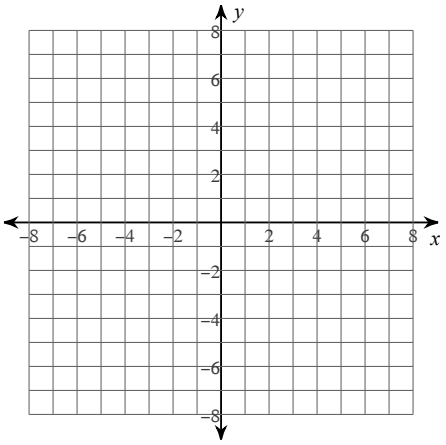
g. Domain: h. Range:

j. Increasing: k. Decreasing:

l. Positive: m. Negative:

n. End behavior:

12) $y = -2x^2 - 4x + 5$



Write the equation in each of its forms.

13) $y = -\frac{1}{2}x^2 - 2x$

Vertex Form:

Intercept Form:

Standard Form:

14) $y = x^2 + 2x + 3$

Vertex Form:

Intercept Form:

Standard Form:

15) $y = -3(x + 1)^2 + 2$

Vertex Form:

Intercept Form:

Standard Form:

16) $y = -2(x + 4)^2 - 1$

Vertex Form:

Intercept Form:

Standard Form:

17) $y = 3(x - 4)(x - 2)$

Vertex Form:

Intercept Form:

Standard Form:

18) $y = -x(x - 6)$

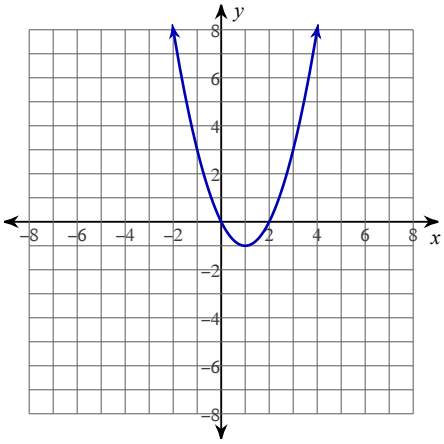
Vertex Form:

Intercept Form:

Standard Form:

Write the equation from the graph.

19)



20) Vertex Form:

Intercept Form:

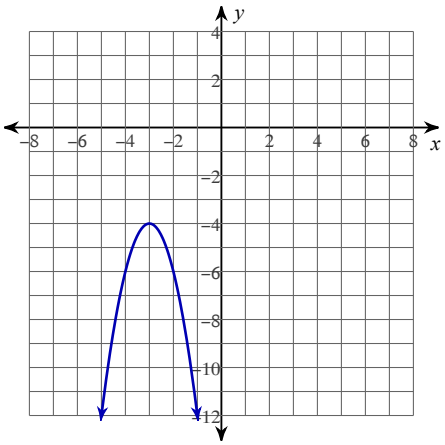
Standard Form:

21) Vertex Form:

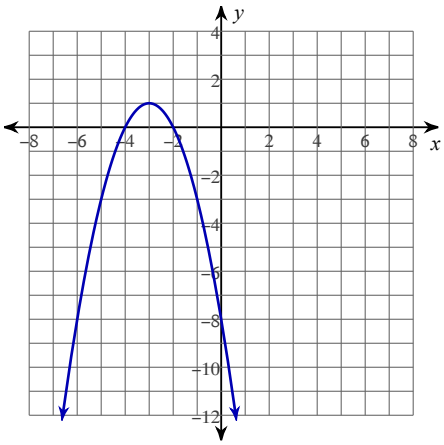
Intercept Form:

Standard Form:

22)



23)



24) Vertex Form:

Intercept Form:

Standard Form:

25) How do you find the y-intercept if it goes off the graph?

26) What kind of solutions does the equation have if it's graph doesn't have x-intercepts?

27) What do the x-intercepts of a graph represent?