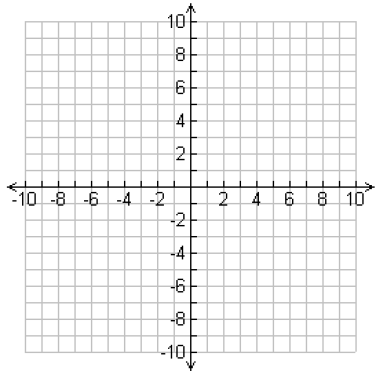
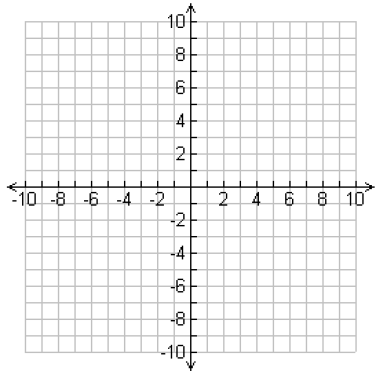
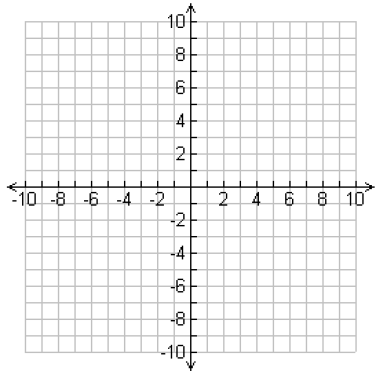
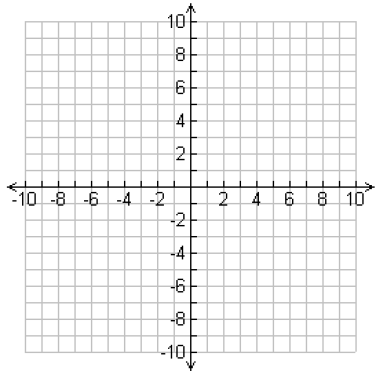
Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Algebra Quadratic Graphing TEST REVIEW

Graph the following quadratic functions:

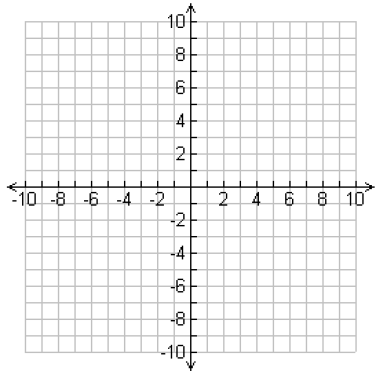
1.  y x2 - 5 2. y -2x2 + 1



1.  y x2 – 4 4. Y -x2 + 6



5. f(x) = -2x2 – 10x + 1

AOS \_\_\_\_\_\_\_\_\_\_\_\_

Vertex \_\_\_\_\_\_\_\_\_\_\_

y-intercept \_\_\_\_\_\_\_\_\_\_\_\_

domain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

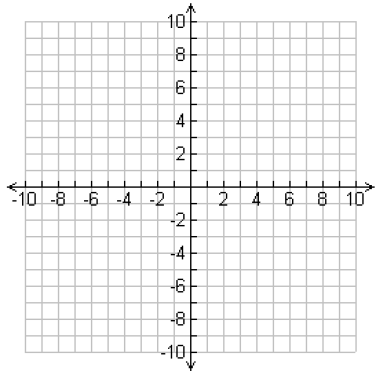
range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

increasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_

decreasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_

as x\_\_\_\_\_\_\_\_\_\_\_\_

as x\_\_\_\_\_\_\_\_\_\_\_\_\_

6. f(x) = (x + 3)2 – 2

AOS \_\_\_\_\_\_\_\_\_\_\_\_

Vertex \_\_\_\_\_\_\_\_\_\_\_

y-intercept \_\_\_\_\_\_\_\_\_\_\_\_

domain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

increasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_

decreasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_

as x\_\_\_\_\_\_\_\_\_\_\_\_

as x\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Write the functions in order from most narrow to widest

A. y = x2 – 3x B. y = -3x2 + 5x – 1 C. y = - x2 + 2x – 1

D. y = 5x2 – 2 E. y = x2 + 5

Without graphing, answer the following:

8. y = x – 24)2 + 50 9. y = -5x2 + 28x – 24

A. AOS \_\_\_\_\_\_\_\_\_ A. AOS \_\_\_\_\_\_\_\_\_

B. vertex \_\_\_\_\_\_\_\_\_\_\_ B. vertex \_\_\_\_\_\_\_\_\_\_\_

C. y-intercept \_\_\_\_\_\_\_\_ C. y-intercept \_\_\_\_\_\_\_\_

D. Domain \_\_\_\_\_\_\_\_\_\_\_ D. Domain \_\_\_\_\_\_\_\_\_\_\_

E. Range \_\_\_\_\_\_\_\_\_\_\_\_ E. range \_\_\_\_\_\_\_\_\_\_\_\_\_

F. vertex is max/min? \_\_\_\_\_\_ F. vertex is max/min? \_\_\_\_\_\_

G. graph is more wide or narrow than y = x2? G. graph is more wide or narrow than y = x2?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

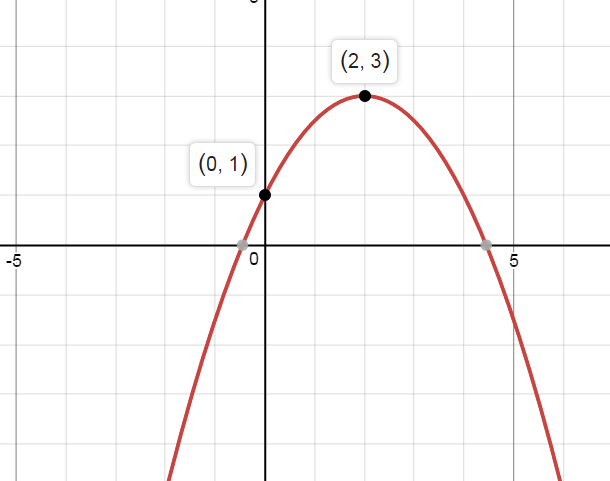
H. as x\_\_\_\_\_\_\_\_\_\_\_\_ H. as x\_\_\_\_\_\_\_\_\_\_\_\_

as x\_\_\_\_\_\_\_\_\_\_\_\_\_ as x\_\_\_\_\_\_\_\_\_\_\_\_\_

For #10-14 write a function in vertex form:

10. y = -2x2 – 12x + 20 11. Y = 5x2 + 40x + 12

12. contains (0, 104) vertex is (12, 8) 13. Contains (0, -2) vertex (-1, -7)

14.

15. A ball is thrown with an initial upward velocity of 50 ft/s. Its height h in feet after t seconds is given by the function h = -16t2 + 50t + 6.

A. After how many seconds does the ball reach its maximum height?\_\_\_\_\_\_\_

B. what is the maximum height? \_\_\_\_\_\_\_\_\_\_

16. A small company markets a new toy. The function S = -64p2 +2400p predicts in dollars, the total sales S as a function of the price p of a toy.

A. If the price is $25, what are the total sales? \_\_\_\_\_\_\_\_\_\_

B. Which price will produce the highest sales? \_\_\_\_\_\_\_\_\_\_\_\_

C. What is the maximum sales predicted? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. Write the function in standard form: f(x) = 2(x – 6)2 + 12