

**Unit 4 – Quiz Review**

Name: \_\_\_\_\_

For #1-6, determine the characteristics of the following functions and graph.

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

Up or Down \_\_\_\_\_

Max or Min \_\_\_\_\_

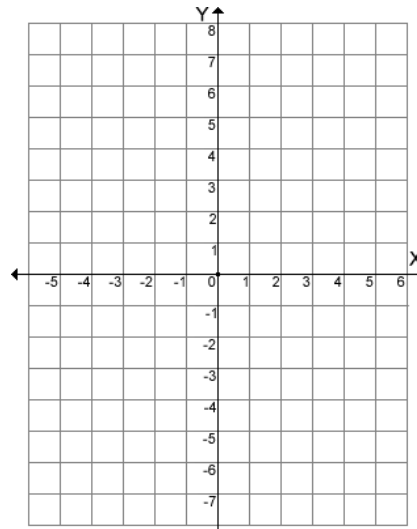
AOS: \_\_\_\_\_

Vertex: \_\_\_\_\_

Y-intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



2.)  $g(x) = -x^2 + 2x + 1$

Up or Down \_\_\_\_\_

Max or Min \_\_\_\_\_

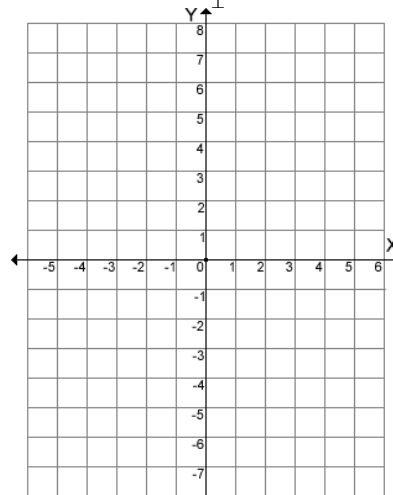
AOS: \_\_\_\_\_

Vertex: \_\_\_\_\_

Y-intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



3.)  $h(x) = (x + 2)^2 - 3$

Up or Down \_\_\_\_\_

Max or Min \_\_\_\_\_

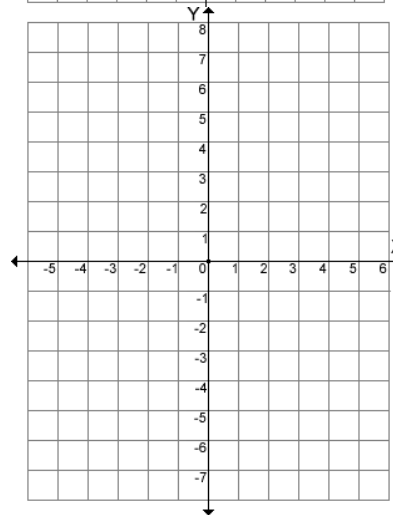
AOS: \_\_\_\_\_

Vertex: \_\_\_\_\_

Y-intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



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

Up or Down \_\_\_\_\_

Max or Min \_\_\_\_\_

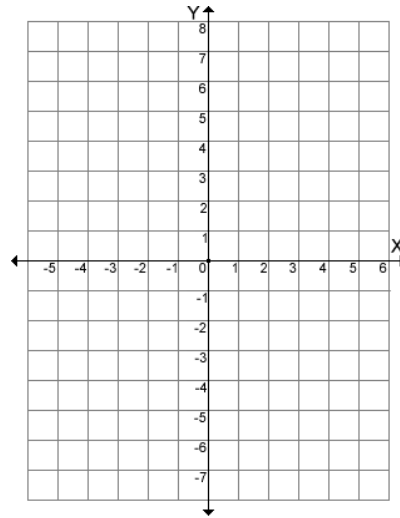
AOS: \_\_\_\_\_

Vertex: \_\_\_\_\_

Y-intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



5.)  $g(x) = (x-1)(x+3)$

Up or Down \_\_\_\_\_

Max or Min \_\_\_\_\_

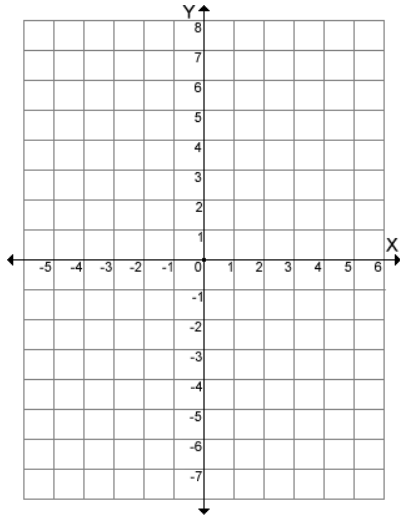
AOS: \_\_\_\_\_

Vertex: \_\_\_\_\_

Y-intercept: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



6.)  $h(x) = (x+2)(x-2)$

Up or Down \_\_\_\_\_

Max or Min \_\_\_\_\_

X-intercepts: \_\_\_\_\_

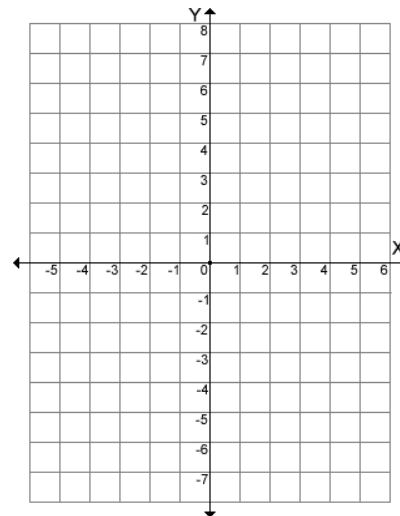
AOS: \_\_\_\_\_

Vertex: \_\_\_\_\_

Y int: \_\_\_\_\_

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



Write the following equations in vertex form and determine their vertex:

7.)  $y = x^2 + 16x + 71$

8.)  $y = x^2 - 2x - 5$

9.)  $y = -x^2 - 14x - 59$

10.)  $y = 2x^2 + 36x + 170$

11.)  $y = x^2 - 12x + 46$

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

Write the following equations in standard form:

13.)  $y = (x + 4)^2 - 5$

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

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

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

17.)  $f(x) = (x + 2)(x - 3)$

18.)  $f(x) = (x - 4)(x - 2)$

19.)  $y = (x + 5)(x - 1)$

20.)  $f(x) = (x + 3)(x + 4)$

Write the following equations in intercept form and identify the intercepts:

21.)  $y = x^2 + 10x + 24$

22.)  $y = x^2 + 7x + 6$

23.)  $y = x^2 - 12x + 36$

24.)  $y = x^2 - 2x - 15$