**Assignment: Review Transformations**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

Given: $f(x)$ NO CALCULATOR

![Description: [image]]()

 Domain: *f*(-7) =

 Range: *f*(4) =

 Zeros: *f*(0) =

 For what values of *x* is *f(x)* = 2?

**Use the graph of *f(x)* to graph:**

1. $y=f\left(x\right)+3$ 2. $y=f\left(x-1\right)-2$

![Description: [image]]()![Description: [image]]()

Domain:

Range:

For what values of *x* is *y* = 0?

Domain:

Range:

How many zeros does *y* have?

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

![Description: [image]]()![Description: [image]]()

Domain:

Range:

For what values of *x* is *y* = 4?

Domain:

Range:

What are the zeros of *y*?

**Graph each function.**

5. $f\left(x\right)=\sqrt{x+3}-1$ 6. $g\left(x\right)=2\left|x\right|-4$ 7. $h\left(x\right)=-\left(x-2\right)^{2}+4$

![Description: [image]]()![Description: [image]]()![Description: [image]]()

Domain:

Range:

For what values of *x*

is *f(x)* > -5?

Domain:

Range:

For what values of *x*

is *f(x)* = 4?

Domain:

Range:

How many zeros

does *f(x)* have?

8. $m\left(x\right)=\frac{1}{2}\left|x+1\right|-3$ 9. $g\left(x\right)=3x^{2}-5$ 10. $h\left(x\right)=-2\sqrt{x-2}+3$

![Description: [image]]()![Description: [image]]()![Description: [image]]()

Domain:

Range:

How many zeros does

*f(x)* have?

Domain:

Range:

For what values of *x*

is *f(x)* = -2?

Domain:

Range:

For what values of x

is *f(x)* < -2?

**Write the function shown on each graph below.**

11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**P**

**Put each equation into vertex form, name the vertex and graph.**

14. $f\left(x\right)=x^{2}-4x+5$ 15. $f\left(x\right)=x^{2}+6x+10$ 16. $f\left(x\right)=x^{2}+8x+13$

Vertex:

Domain:

Range:

For what values of x

is *f(x)* = 5?

Vertex:

Domain:

Range:

How many zeros does

*f(x)* have?

Vertex:

Domain:

Range:

For what values of x

is *f(x)* < 6?

17. Graph the inverse of *f(x)*.

![Description: [image]]()

**Graph each function and the inverse.**

18. $f\left(x\right)=\left(x-3\right)^{2}+2$ 19. $g\left(x\right)=\sqrt{x+4}-3$

![Description: [image]]()![Description: [image]]()

![Description: [image]]()**Graph the function, find the inverse algebraically and graph the inverse.**

20. $h\left(x\right)=4x-8$