Name $\qquad$
Hour

## Ready, Set, Go! - Functions 4

## Ready

Draw a sketch of the following graph descriptions.

1. $y=x$ Linear

2. $f(x)=\sqrt{x}$ Root

3. $f(x)=x^{3}$ Cubic

4. $f(x)=x^{2}$ Quadratic/Parabola

5. $y=|x|$ AbsoluteValue

6. $y=a^{x}$

Exponential


Set
State which basic function shape corresponds to the following equation.
7. $y=3 \sqrt[3]{x}-3$
8. $f(x)=-5+x$
9. $y=-\sqrt{x}+4$
10. $f(x)=7 x+5$
11. $y=-5|x+1|-4$
12. $g(x)=4^{x-3}$
13. $f(x)=3(x-1)^{3}$
14. $y=3^{x-2}$
15. $h(x)=x^{2}+4$

## Go <br> Match the name with the equation and the graph by connecting them with lines

Name

Equation
16. Quadratic

$$
y=\sqrt{x}+4
$$

$$
y=x^{2}+3
$$

17. Linear

18. Square Root

$$
f(x)=2 x
$$

19. Absolute Value

$$
f(x)=|x-1|+2
$$




Circle the function that increases the fastest as the $x$-values get really large:

$$
f(x)=2^{x}
$$

$$
g(x)=200 x^{2}
$$

Circle the function that increases the fastest as the $x$-values get really large:

$$
h(x)=3 x^{3}
$$

$$
k(x)=3^{x}
$$

