

Section 1.4

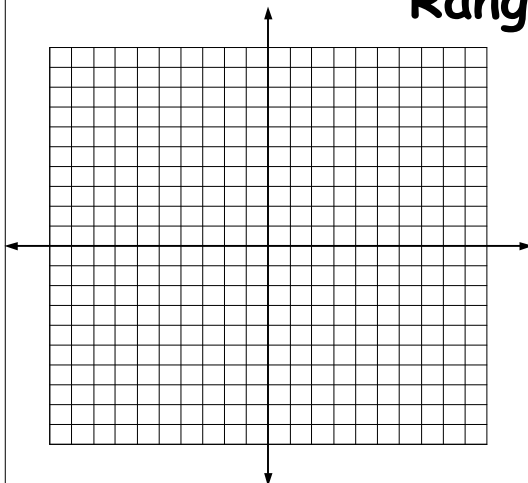
Parent Functions

Parent Functions

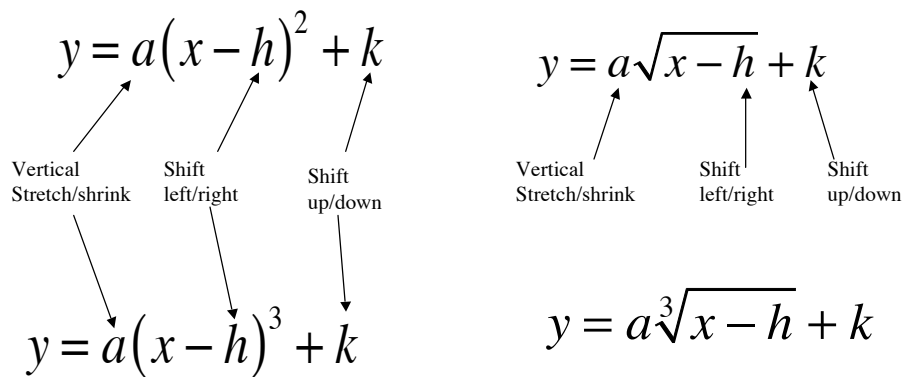
List the functions

- | | |
|----------------|-------------------|
| 1) Linear | 6) Absolute Value |
| 2) Quadratic | 7) Rational |
| 3) Cubic | 8) Piece-wise |
| 4) Square Root | |
| 5) Cube Root | |

Give an example of each graph along with Domain and Range



Transformations

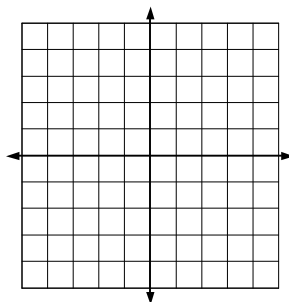
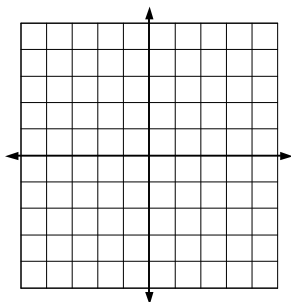
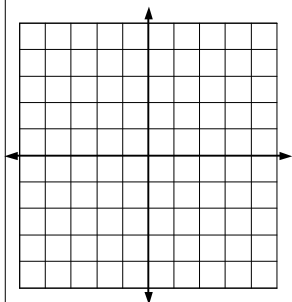


Graph the following using transformations

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

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

$$y = \sqrt{x + 2} - 1$$

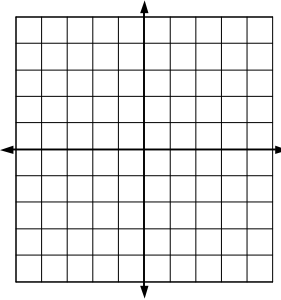
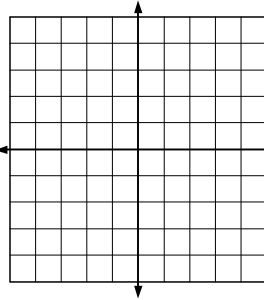
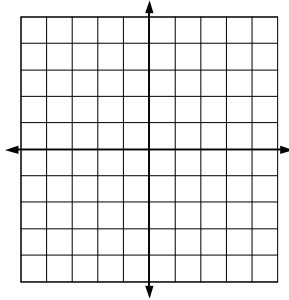


KEEP GRAPHING

$$y = |x + 2| - 1$$

$$y = \frac{1}{x+2} - 1$$

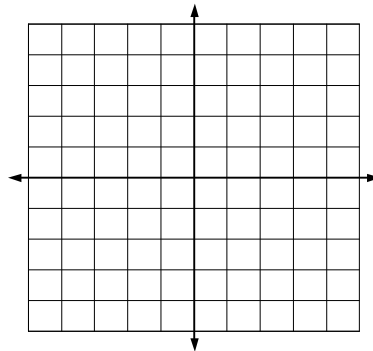
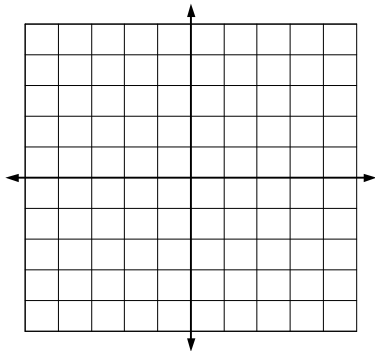
$$y = \sqrt[3]{x+2} - 1$$



Piece-wise Functions

$$\begin{cases} y = -(x-3)^2 + 1, & x \leq 2 \\ y = 2x - 3 & x > 2 \end{cases}$$

$$\begin{cases} y = \sqrt{x} - 2, & x > 0 \\ y = x^2 - 2 & x < 0 \end{cases}$$



**You Must Know These
Parent Functions!!!**

**PRACTICE TILL YOU
KNOW IT!!!!!!!**