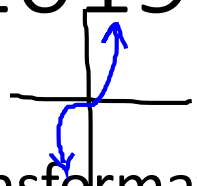
Monday, January 28, 2019 – 6th

- Warm-up
  - Explain how the graphs of the transformations relate to the parent function $f(x) = x^3$



1. $f(x) = 1/3x^3$ wider
2. $f(x) = (x - 1)^3 + 4$ right 1, up 4
3. $f(x) = -2x^3$ flipped "steeper"

- Square Root and Cube Root Functions
  Go, Boat, Go!
  Lesson 8-3
  Cube Root Functions

Objectives

Content: I will graph and describe transformations of the cube root function.

Social: I will use my time wisely.

Language: I will identify key features of a graph in writing.

Monday, January 28, 2019 – 7th

- Warm-up
  - Solve each of the following for x

$8x^3 = -27$

$\frac{8x^3}{8} = \frac{-27}{8}$

$\sqrt[3]{x^3} = \sqrt[3]{-3.375}$

$x = -1.5$

$-1/2(x-2)^3 + 4 = 36$

$-4 \quad -4$

$-\frac{2}{1} \cdot -\frac{1}{2}(x-2)^3 = 32 \cdot \frac{2}{1}$

$\sqrt[3]{(x-2)^3} = \sqrt[3]{-64}$

$x - 2 = -4$

$+2 \quad +2$

$x = -2$

$3(x-4)^3 - 4 = -1$

$+4 \quad +4$

$\frac{3(x-4)^3}{3} = \frac{3}{3}$

$\sqrt[3]{(x-4)^3} = \sqrt[3]{1}$

$x - 4 = 1$

$+4 \quad +4$

$x = 5$

- Square Root and Cube Root Functions
  Go, Boat, Go!
  Lesson 8-4
  Solving Cube Root Functions

Objectives

Content: I will solve and check a cube root function.

Social: I will use my time wisely.

Language: I will interpret my solutions in writing.