

# Friday, January 25, 2019 – 6<sup>th</sup>

- Warm-up

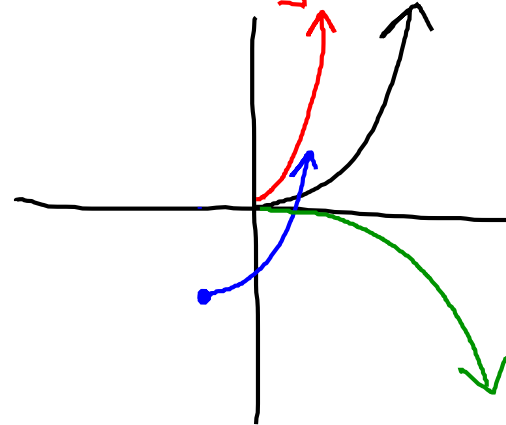
- Using what you know about transformations and a parabola, sketch graphs of the following with domain restriction of  $\{x \mid x \geq 0\}$  in 4 different colors:

- $f(x) = x^2$

- $f(x) = 2x^2$

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

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



- Square Root and Cube Root Functions

Go, Boat, Go!

Lesson 8-1 Square Root Functions

**Objectives:**

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

**Social:** I will participate in the lesson.

**Language:** I will write clear interpretations of the key features of a graph.

# Lesson 8-1

## Square Root Functions

page 103



- Instructions:
  - tear pages 103-106 out of your book and store your book under your desk
  - get a chromebook and go to desmos on google chrome
- Goal:
  - get through The lesson 8-1 practice before the end of 6<sup>th</sup> period

**Objectives:**

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

**Social:** I will participate in the lesson.

**Language:** I will write clear interpretations of the key features of a graph.

Friday, January 25, 2019 – 7<sup>th</sup>

- Warm-up

- Solve each the following for x

$$\begin{aligned} 4x^2 - 9 &= 0 \\ \frac{4x^2}{4} + \frac{9}{4} &= \frac{9}{4} \\ \sqrt{x^2} &= \sqrt{\frac{9}{4}} \\ &= \frac{\sqrt{9}}{\sqrt{4}} = \frac{3}{2} \end{aligned}$$

$$\begin{aligned} (x + 2)^2 + 3 &= 12 \\ \sqrt{(x + 2)^2} &= \sqrt{9} \\ x + 2 &= 3 \\ \cdot 2 \quad \cdot 2 & \\ x &= 1 \end{aligned}$$

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

$$\begin{aligned} 3 - 1/3(x - 4)^2 &= -9 \cdot 3 \\ \sqrt{(x - 4)^2} &= \sqrt{-27} \\ x - 4 &= \sqrt{-27} \\ \text{no real} & \\ \text{solution} & \end{aligned}$$

- Square Root and Cube Root Functions  
Go, Boat, Go!

## Lesson 8-2 Solving Square Root Equations

**Objectives:**

**Content:** I will solve square root equations.

**Social:** I will participate in the lesson.

**Language:** I will write a clear explanation of “extraneous solutions.”