Warm Up

- Prepare your rollercoaster presentation!
- Make sure all parts are completed
- Grade your team on the rubric

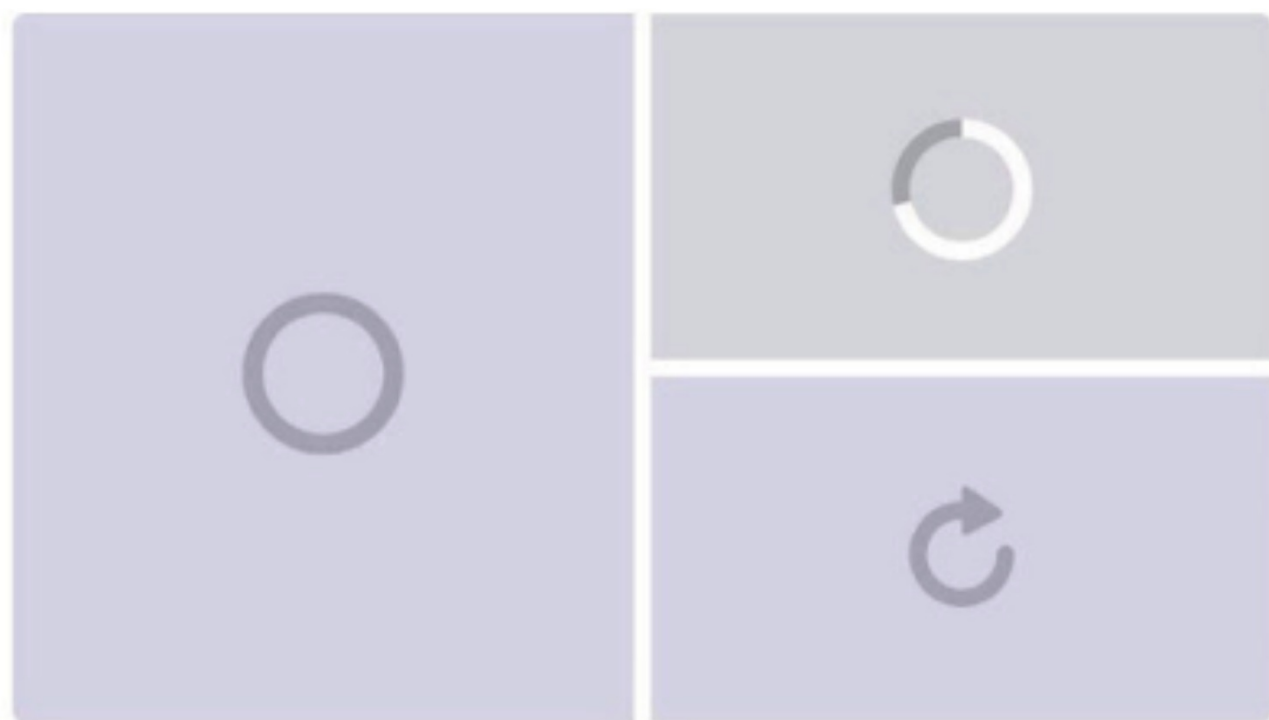# Rollercoaster Presentations

SCHEDULE UPDATES

Tomorrow = Unit 1 Assessment (test)
Objectives: 0.1-1.4 ONLY

my brain in math

1.6 I can:

1. apply the laws and evaluate the **combinations** of functions.

Why?

Most of the functions that you will encounter in calculus and in real life can be created by combining or modifying other functions. Combining functions can sometimes help you better understand the big picture of real world situation, like in the number of bacteria in left over Chinese food.

Combinations Rules Jigsaw!

1. Assign each person a number 1-4

2. Use your number and head to the appropriate "Corner Team"

3. Complete the Task + Practice Problems

4. Come back and share with your Home Team

Make sure...
- You write down the problem
- Explain step by step your Combination Rule
- Every team member must share!

1.6 Combinations of Functions

1. Addition Rule $\rightarrow$ $(f+g)(x) = f(x) + g(x)$

2. Subtraction Rule $\rightarrow$ $(f-g)(x) = f(x) - g(x)$

3. Multiplication Rule $\rightarrow$ $(f \cdot g)(x) = f(x) \cdot g(x)$

4. Division/Quotient Rule $\rightarrow$ $(f/g)(x) = \dfrac{f(x)}{g(x)}$

Check 1

Given $f(x) = 2x + 1$ and $g(x) = x^2 + 2x - 1$

(a) find $(f - g)(x)$.

(b) find $(f+g)(x)$

(c) find $(fg)(x)$

(d) find $(f/g)(x)$

<u>P-I-G</u>

- Complete the problems
- Ask 3 before Ms. G!
- Be confident in <u>YOU</u> and <u>your MATH ABILITIES</u>!

Exit Ticket Review