San Juans Bicycle Exploration

PERFORMANCE TASKS

1: Complete the green, pink, and blue input-output tables for **pedal vs. wheel revolutions** on the **brochure**.

2: Using **Desmos**, represent each function with a table, equation, and graph. Color code tables, equations, and graphs green, pink and blue. Write each function's equation (y=mx+b) next to the corresponding input/output table on your **brochure**.

3: Using **Desmos**, create notes to answer the following? What does the slope represent in the context of bicycles? Which function has the greatest slope? Which function has the least slope? What does the slope represent in this context.

4: Repeat these 4 tasks for the function: **pedal revolutions vs. distance traveled**.

5: Take a screen shot of your 2 graphs that include your notes and insert here:
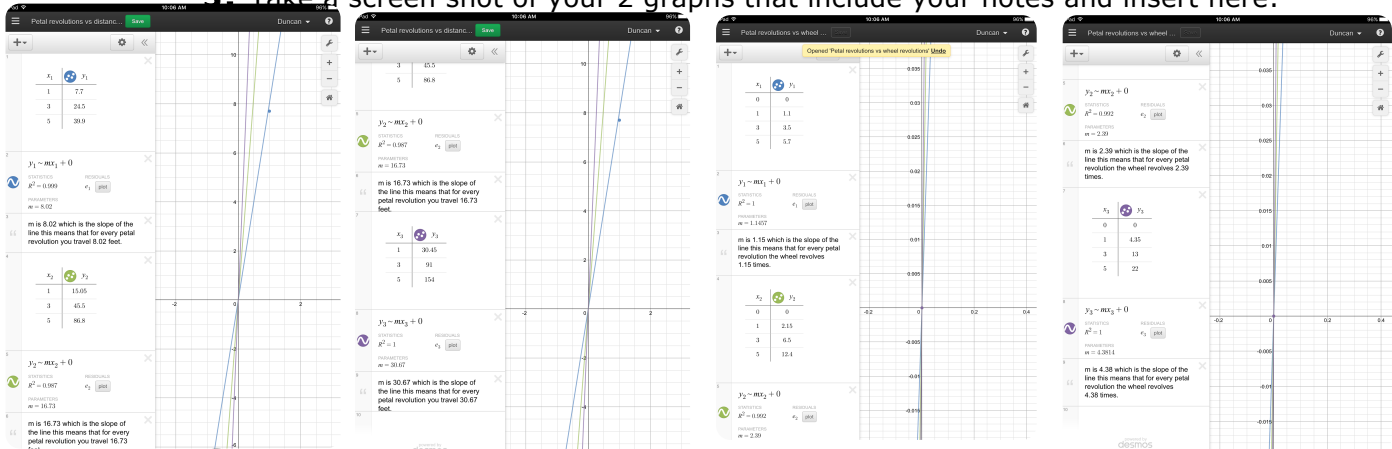
6: Complete the written reflection on your **brochure** or create a video!

7 Mastery: Create a line y=300 on the **pedal vs distance traveled Desmos** graph. For each gear combination, how may pedal revolutions are needed to travel a football field (300 feet)? Create a note to explain your answers. Take a screen shot of your graph that include your note and insert here:
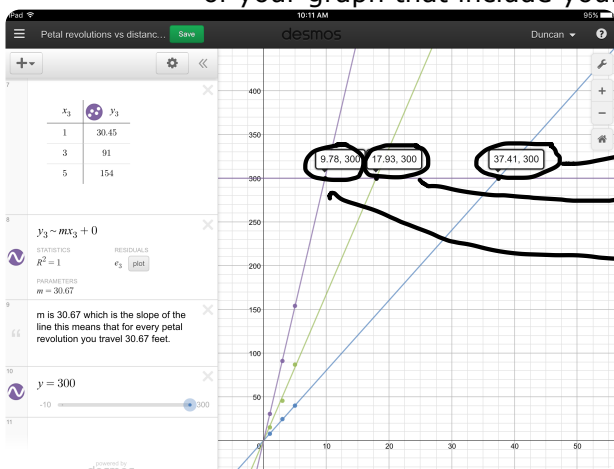
For small chain ring and large rear cog it takes 37.41 petal strokes to go across a football field. For middle chain ring and middle rear cog it takes 13.93 petal strokes to go across a football field. For large chain ring and small rear cog it takes 9.78 petal strokes to go across a football field.