

Kira

San Juans Bicycle Exploration



PERFORMANCE TASKS

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

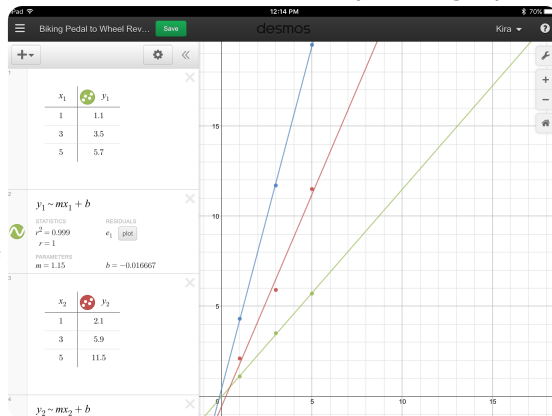
2: Using **Desmos**, represent each function with a table, equation, and graph. Color code tables, equations, and graphs green, pink and blue. Write each function's equation ($y=mx+b$) next to the corresponding input/output table on your **brochure**.

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.

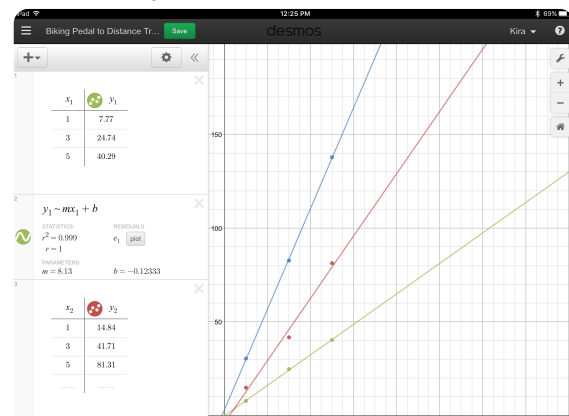
4: Repeat these 4 tasks for the function: **pedal revolutions vs. distance traveled**.

5: Take a screen shot of your 2 graphs that include your notes and insert here:

The slope is the amount the wheel turns for every pedal revolution. The blue function has the greatest slope, that means that the wheel turns the most for the least amount of pedal revolutions, the green function is the opposite.

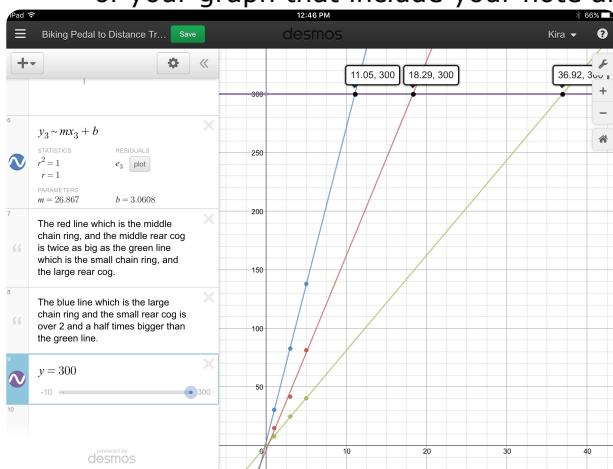


The slope is the distance you travel for every pedal revolution. The blue function has the greatest slope, that means you travel the farthest with the least pedal revolutions, the green is the opposite.



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 many 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:



The blue function goes farther faster so it gets there first, and then the pink and then the green.