Slope and Intercept

Goals:

- Identify Independent and Dependent variables
- Identify difference and similarities between graphs
- Recognize slope as some quantity, not just rise over run
- Determine if an intercept is valid or not
 - Use the Significance Rule \rightarrow Intercept valid if > 5% of Max
 - Does it make sense Rule

Independent/Dependent Variables

- What is an independent variable? \rightarrow variable that you can control
- What is a dependent variable? → variable that changes based on the independent variable, it DEPENDS!
- How might we set up a chart to record our data?
- Which variable will be independent? Which will be dependent? Which is better?

Lab Whiteboarding / Post-Lab questions

- What do you notice is the same about all of these graphs?
- What is different?
- What do you notice about the axes? What did you plot on your x-axis?
- What is the best-fit equation?
- What is the slope of all of these lines? Does it look familiar?
- What does the slope tell us?
- Do these graphs have intercepts?
- Should they have intercepts? What does our max rule say?
- Does it make sense that they have intercepts?

Slope

- How do we find slope? What do we need? (2 points)
- Slope oftentimes just defined as rise over run
- Define as Change in Y over Change in X \rightarrow Refer to as Δ Y and Δ Y
- What is Y? What is X? What does our slope say about our graph?
- Does this look familiar, how can we relate circumference and diameter?

Y-Intercept

- What is a y-intercept?
- When do we keep it?
 - Use the Significance Rule \rightarrow Intercept valid if > 5% of Max
 - Does it make sense Rule
- What does the y-intercept tell us?