

Pi Day snack scatterplot

In this activity your students will explore the relationship between diameter and circumference of their favorite round snacks!

Materials:

- Circular snacks
- String cut into long sections (one per student or group of students)
- Rulers (one per student or group of students)
- Printed Handout
- NumWorks graphing calculator

Before class instructions:

Let students know about Pi Day! Ask students to bring a **circular** shareable snack to class with them on Pi Day. For example: Oreos, Pringle cartons, cookies, fudge rounds, pie, etc.

Activity instructions:

1. Have students collect one of each of the circular snacks, a string, rulers, and the printed handout. (Ask them not to eat their snacks until after the activity 😊)
2. For each circular snack, students should measure the diameter (cm) and circumference (cm) and record these values on their handout.
3. Using their NumWorks calculator, students will input their data into the regression app with diameter values in the x-column and circumference values in the y-column.
4. Have students answer all questions on the Handout
5. Let students eat their snacks!

Discussion questions:

1. What is the slope of the line of best fit?
2. Why does this slope make sense in the context of the snacks?
3. If the slope should be 3.14, but is not, what do you think caused some of the error?
4. Who was able to get the closest to 3.14?
5. If we had more snacks, what predictions can you make about where they would fall in the scatter plot?

**Other suggestions to go deeper

- Explore the Residual plots to identify greatest outliers
- Allow students to re-measure snacks to improve their slope.