Candy Auction Data Collection

Group Members: _____ _____ _____

_____ **Period:** _____ **Date:** _____

Quick Setup

- Your group has **$20 virtual dollars** to spend (track this yourselves)

- Each round: 5 candies are auctioned at a set price

- Decide as a group: Will you buy at that price? (You can only buy ONE set per round)

- Record the price and how many total groups bought

Data Collection

Round	Price for 5 Candies ($)	Number of Groups Buying	Revenue (Price × Quantity)
1			
2			
3			
4			
5			
6			
7			
8			

Budget Tracker: Starting: $20.00   Remaining: _____

Desmos Analysis - Part 1: Enter Data & Plot

Step 1: Create your price list
In Desmos, type exactly: `P = [` _____ `]`
Example: `P = [8, 2, 5, 1, 6.5, 3.5]`   (use YOUR prices from the table)

Step 2: Create your quantity list
In Desmos, type exactly: `Q = [` _____ `]`
Example: `Q = [0, 4, 2, 4, 1, 3]`   (use YOUR quantities from the table)

Step 3: Create scatter plot
In Desmos, type exactly: `(P, Q)`

Check: You should see dots on the graph showing your data points!

Desmos Analysis - Part 2: Find the Pattern

Step 4: Add the regression line
In a new line, type exactly: `Q ~ m*P + b`
Note: The ˜ symbol tells Desmos to find the best fit line

Step 5: Record what Desmos found
Desmos will show values for m and b. Write them here:

$$Q = \boxed{} \times P + \boxed{}$$

(slope m)   (y-intercept b)

Quick Analysis

1. Is your slope negative (going down left to right)?   Yes   No

2. In one sentence: What does a negative slope mean about price and demand?

   _____

3. Which price in your table gave the highest revenue? $_____

4. Prediction: Using your equation, how many groups would buy if the price was $4.00?

   Show work: _____ groups

   _____

Save your Desmos graph! Screenshot or bookmark the link - you'll need it tomorrow.