## 2.5 Scatter Plots and Lines of Regression Honors Algebra 2



## Line of Best Fit:

1. Starting in January of this year Zac made the goal to save up for a new phone. He had \$564 in the bank already and needed \$1000 for the phone. He looked back at how much he was able to save in past months and found the following data.

Month	Total \$ in Bank
Мау	564
June	601
July	643
August	650
September	709

- 2. Import this data on desmos and sketch the scatter plot.
- 3. Create a line of best fit.
- 4. In December how much money can he expect to have saved using the line of best fit?
- 5. When can Zac expect to have saved enough money to purchase the phone?

- 1. Make a goal! What do you want to save for? How much does it cost?
- 2. How much do you currently have saved in the bank?
- 3. Thinking back or looking back, how much do you tend to save a month? Fill in the tables below with this data.

Month	\$ Saved Each Month

Month	Total \$ in Bank

- 4. On desmos, plot your data (only plot the Total \$ in Bank data).
- 5. Create your line of best fit and state it below.
- 6. Using your line of best fit, how long will it take for you to save enough money to purchase your goal item?
- 7. How much will you have saved in one year? Two years?
- 8. Could you save more each month? Add future months to your table with how much you think you could save.
  - a. How much more quickly do you arrive at your goal amount?