

Target 2.12: I can analyze data to find the line of best fit with and without a calculator.

### Open Response

The school board has asked for your help on the planning committee to determine a projected date for building an additional high school in Brown County. You are given a list of data for the enrollment of the county high schools over a 10-year period. The year 1990 corresponds to 0; the year 1991 corresponds to 1 and so on.

Year	Enrollment
0	3,891
1	4,028
2	4,452
3	5,126
4	5,503
5	5,753
6	6,001
7	6,124
8	6,345
9	6,414

- a. Graph a scatterplot for the data.
- b. Calculate the line of best fit that models the data.
- c. Explain the meaning of the slope of the line of best fit. Use numbers and be specific.
- d. Predict the enrollment in 2011.

