Problem 1

The table at the right shows the attendance for the varsity football games at Marco's high school.

Using the graphing calculator, Desmos.com, the given set of data was entered into a table that produced a discrete graph. Desmos.com was also used to generate the line of best fit, the linear regression equation, and the correlation coefficient.

Please use the information for Problem 1 on the attached sheet to answer the following questions.

Game	Attendance
1	2000
2	2132
3	2198
4	2301
5	2285
6	2401

1. What is the **linear regression equation** for the game attendance? Round the slope (m) and y-intercept (b) to a **whole number**.

2. What is the **correlation coefficient** (r)? Round to the **100th** place.

3. Is the **line of best fit** a good representation of the data?

4. Use the **linear regression equation** to predict the attendance for **game 9**. Think, does x represent the number of games or attendance?

5. Use the **linear regression equation** to predict what game would have **about 3000** people in **attendance.** Round to a **whole number**.

Problem 2

The table at the right shows the monthly record sales for a recording artist over 6 months.

Using the graphing calculator, Desmos.com, the given set of data was entered into a table that produced a discrete graph. Desmos.com was also used to generate the line of best fit, the linear regression equation, and the correlation coefficient.

Please use the information for Problem 2 on the attached sheet to answer the following questions.

Monthly	Record Sales (CDs)
January	60,000
February	54,000
March	58,000
April	46,000
May	43,000
June	30,000

1. What is the **linear regression equation** for monthly record sales? Round the slope (m) and y-intercept (b) to a **whole number**.

2. What is the **correlation coefficient** (r)? Round to the **100th** place.

3. Is the **line of best fit** a good representation of the data?

4. Use the **linear regression equation** to predict the record sales for **December**. Think, does x represent the number of the month or record sales?

5. Use the **linear regression equation** to predict what month will have **about 26,000** in record sales. Round to a **whole number**.