NAME:

1. The table shows the study times and test scores for a number of students. Identify the scatter plot that corresponds to the given data.



2. Construct a scatter plot to show the relationship between minutes spent studying and test scores.

| Study Time (min.) | 19 | 24 | 26 | 32 | 34 | 39 | 44 | 46 |
|-------------------|----|----|----|----|----|----|----|----|
| Test Score | 66 | 65 | 70 | 73 | 71 | 74 | 75 | 80 |

3. The table gives the times spent watching TV and the grades of several students.

| Weekly TV (h) | 6 | 12 | 18 | 24 | 30 | 36 |
|---------------|------|------|------|------|------|------|
| Grade (%) | 57.5 | 72.5 | 52.5 | 62.5 | 37.5 | 47.5 |

Display the data on a scatter plot of grade versus time. Describe any relationship you see.

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4. Use the data in the table to draw a scatter plot. Draw a line of best fit on the scatter plot. Describe the correlation, if any, between hours spent studying and average score on the test.

| Hours Spent | 0.5 | 1 | 15 | 2 | 25 |
|---------------|-----|----|-----|----|-----|
| Studying | 0.3 | 1 | 1.9 | 2 | 2.5 |
| Average | 58 | 78 | 80 | 85 | 02 |
| Score on Test | 50 | 70 | 00 | 05 | 12 |

5. Construct a scatter plot to display the data in the table below. Be sure to label both axes. Describe any correlation.

| Week # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------------------|----|----|----|----|----|----|----|----|
| Number of Complaints | 25 | 27 | 19 | 15 | 17 | 14 | 16 | 13 |

6. Use a graphing calculator to draw a scatter plot for this data. Describe the correlation.

| Month | 1 | 2 | 3 | 4 | 5 | 6 |
|------------------|-----|------|------|------|------|------|
| Sales (millions) | 4.1 | 4.27 | 4.45 | 5.16 | 4.92 | 5.38 |

| 7. | Temperature | Number of Cones Sold |
|----|-------------|----------------------|
| | 76 | 42 |
| | 80 | 66 |
| | 84 | 72 |
| | 88 | 87 |
| | 92 | 90 |
| | 96 | 92 |
| | 100 | 94 |

The table above shows the relationship between temperature and the number of ice cream cones sold at a school cafeteria. Identify any type of correlation shown in the scatter plot. What does it indicate?

8. The table shows Christine's best javelin throws in meters each year.

| Year | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|----------|-------|-------|-------|-------|------|------|------|------|
| Distance | 46.95 | 47.15 | 48.85 | 47.55 | 50 | 49.7 | 47.9 | 49.6 |

Display the data on a scatter plot of distance versus year. Draw a line of best fit.

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[3] More hours spent watching TV may reduce grades.



- [4] The more hours spent studying, the higher the test score.
- [5] Check students' graphs; there is a weak, negative correlation.
- [6] Check students' graphs; strong, positive correlation

The scatter plot shows a positive correlation. This means that as temperature increases so does the [7] number of ice cream cones sold.

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