ASSIGNMENT 2
Due Monday, September 13

1. Do Exercises 1.37 and 1.40 on page 42 of textbook.

2. Do Exercise 1.84 on page 75 of textbook.

3. Do Exercises 1.86 and 1.87 on page 76 of textbook. The data needed to
   exercise 1.87 can be found on the course's web site, under the Examples
   label.

4. Consider the following equation:

   \[ Y = a + b \times X + \text{error}, \]

   and suppose that \( a = 3 \) and \( b = 2 \). For each of the 10 values of \( X \) and of error
   given below:

   - Compute the corresponding value of \( Y \).
   - Plot \( Y \) against \( X \). [\( Y \) goes on the vertical axis and \( X \) goes on the horizontal
     axis.] You can do this by hand or you can use JMP. If using JMP, carry out
     the following steps:
     - Enter the values of \( X \) and \( Y \) using the New Data Table icon that
       appears when you start JMP.
     - Go to Analyze and choose Fit Y by X.
     - Pick Y to be the Response and X to be the Factor and say OK.
     - [Not required: If you are adventurous, right-click on the red arrow
       above the plot and choose Fit Line. The line you see on the plot
       happens to be the regression line of \( Y \) on \( X \).]
   - Interpret what you see on the plot. In particular, answer the following
     questions:
     - Does the association between \( Y \) and \( X \) appear to be positive,
       negative or simply not there?
     - If you had to draw a curve through the points on the graph that best
       summarizes the relationship between \( Y \) and \( X \), what would that
       curve look like? (Draw it on the plot by hand, approximately).

<table>
<thead>
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<th>( X )</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>4</th>
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<th>9</th>
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<td>-2</td>
<td>3</td>
<td>-1</td>
<td>1</td>
<td>1</td>
<td>-3</td>
<td>-2</td>
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