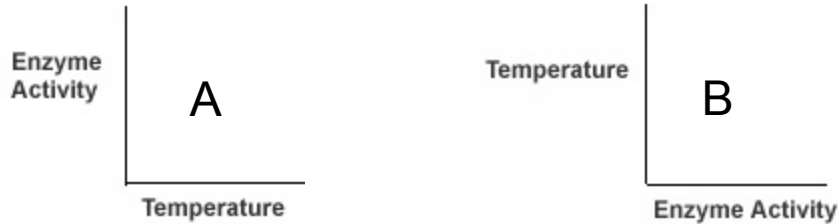


GRAPH QUIZ

Each question is worth one point

1. A scientist would graph the data below as shown in A, not B. Why is this the case?



It is by convention that the independent variable (IV) is graphed on the x-axis, and the dependent variable (DV) is graphed on the y-axis.

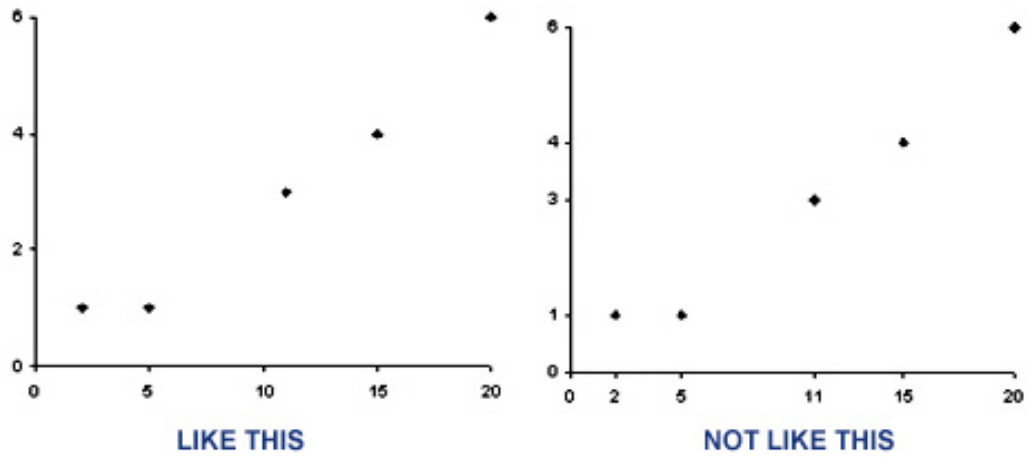
1/2 point awarded for saying “enzyme activity is dependent on temperature”

1/2 point awarded for identifying either the IV or DV (but not both)

2. What does the following label mean: grams of product min^{-1} ?
- a) grams of product produced per unit of time
 - b) grams of product produced in less than a minute
 - c) grams of product/min
 - d) a and c are both correct**

1/2 point awarded for answering A or C

3. Why should the data be plotted “like this” (left graph)?



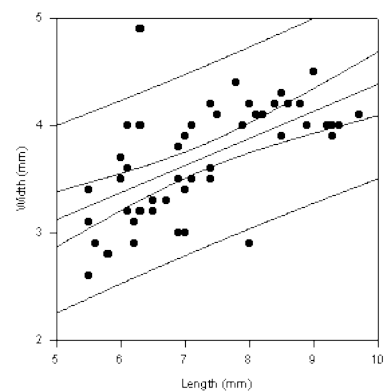
Either answer is acceptable:

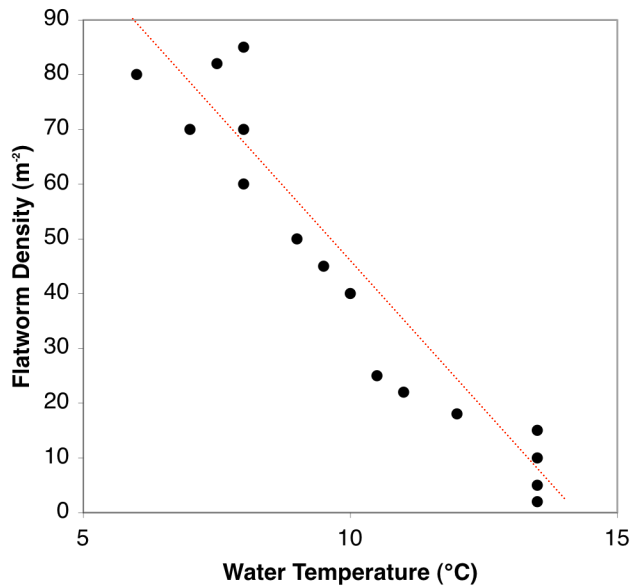
Axes should be labeled at regular intervals.

The axes have to be labeled consistently.

4. What type of graph is this ?

Scatterplot





5. What type of graph is this ? **Scatterplot**

6. Draw a best fit line through the data points.

Any straight line approximation is accepted (see dotted red line for example). 1/2 point awarded for drawing a curve. No points for merely connecting points.

7. What type of correlation does this graph indicate?

- a) Positive
- b) Equal
- c) Negative**
- d) None

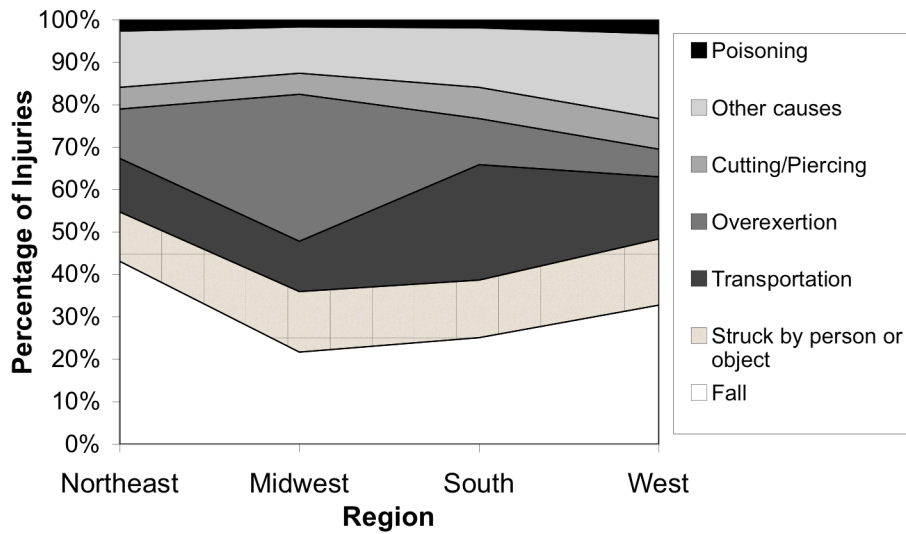
8. What does this graph tell you about the relationship between water temperature and flatworm density?

As water temperature increases, flatworm density decreases.

Full credit for reading from right to left: "As water temperature decreases, flatworm density increases"

1/2 point awarded for only saying that there is an "inverse relationship"

Frequency of Medically Attended Injury



9. What type of graph is this ?

- a) line
- b) pie
- c) area**
- d) block

10. From the graph, estimate the percentage of injuries in the South region that were transportation related.

27% (25-30% accepted)

11. Make a statement comparing the types of injuries that are the most common in the Northeast versus the Midwest.

Fall-related accidents are the most common in the Northeast, while overexertion accidents are most common in Midwest.

1/2 point awarded for getting either half of the question correct

12. You have just completed an experiment that measures the number of sneezes of a mouse with a cold over a fifteen minute period. Your measurements, taken every minute, have values that fall within a range of 50 to 70 sneezes. What can you do with the y-axis to make the graph easier to read?

Restrict the y-axis range from 50-70.

No credit for "change to log scale" alone.

1/2 point awarded for listing both of the above answers.