

SCIENCE 8: GRAPHING ASSIGNMENT

VARIABLES

1. Identify the manipulated and responding variable(s) from the information given.

How does the distance from a flashlight to a screen effect the size of the illuminated area?

manipulated variable	_____
responding variable	_____

2. Identify the manipulated, responding, and one controlled variable.

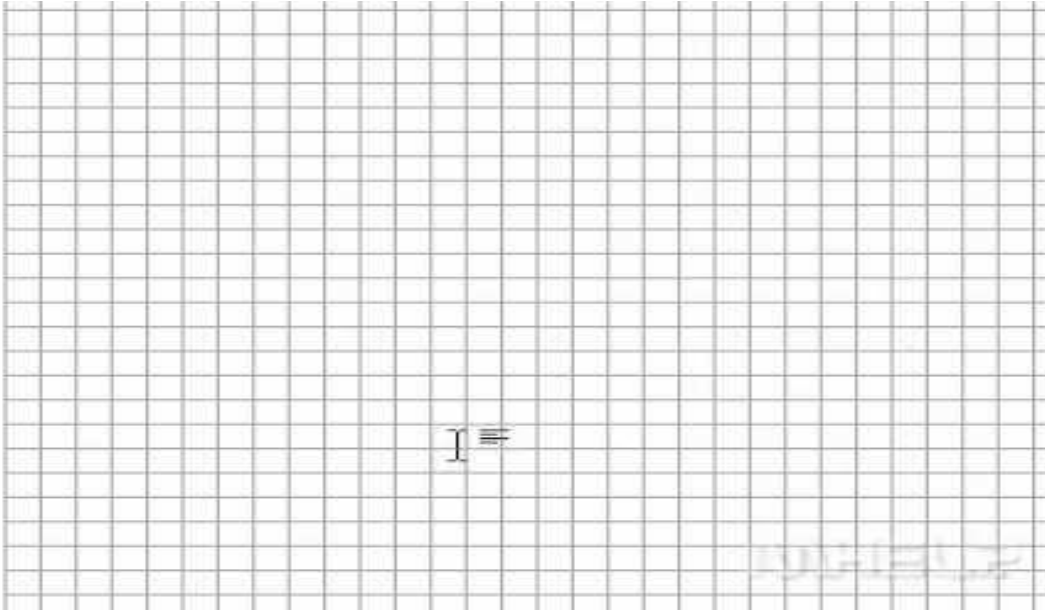
A scientist was trying to determine if the shape of hot air balloons would affect how high they went. The shape of 10 hot air balloons was varied. Some were oval; some were round. The altitude (how high they went) was measured. The scientist tested them on the same day so the weather conditions would be the same. The balloons were the same size.

manipulated variable	_____
responding variable	_____
controlled variable	_____

Line Graph

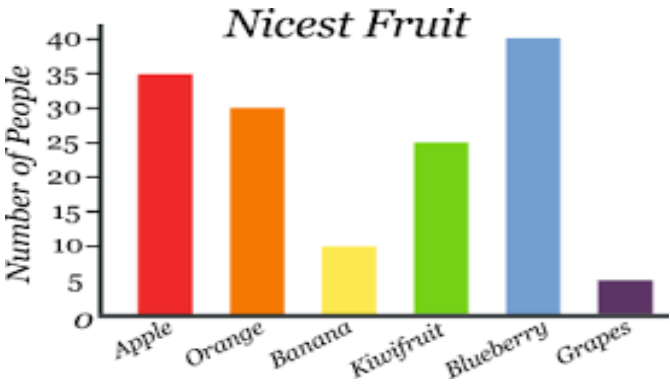
3. The data table below shows water temperatures at various depths in an ocean. Using the information in the data table, construct a line graph on the grid below.

Water Depth (meters)	Temperature (°C)
50	18
75	15
100	12
150	5
200	4



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Bar Graph



Study the bar graph above and answer the following questions.

- What appears to be the nicest fruit consumed ?
 - Banana
 - Grapes
 - Blueberry
 - Apple
- Which combination of fruit was least liked by the people?
 - Banana & Kiwi
 - Apple & Grapes
 - Blueberry & Orange
 - Orange & Kiwi
- What was the total amount of fruit ate during the fall fair as shown in the graph?
 - 145
 - 100
 - 23
 - 135

Circle Graph

4. A vote was cast to see who should become the next mayor of Springfield. Complete the table below and then use your protractor to create a circle graph to display the results.

Who should be Mayor of Springfield	Votes	Fraction	Decimal	Percent	Degree of Angle
Homer	12				
Krusty	6				
Mr. Burns	4				
Bart	8				
TOTAL	30				

