

**BSC1920**  
**March 2015**

**Graph Assignment #1 -- 2 pages**

You can use a graphing program, or simply draw the figures. Remember to clearly label the figures so that anyone looking at the graph can interpret the data.

**FIRST DATA SET**

These data were collected to evaluate the relationship between temperature and the number of times a male frog calls per minute.

<b>Number of frog calls per minute</b>	<b>Temperature (°C)</b>
0	16
0	18
10	20
20	22
30	24
32	26
32	28
32	30
25	32
15	34

1. Create a graph using the continuous data above.
2. Remember to select which column should be the independent variable and which should be the dependent (or response) variable.
3. Write 1 or 2 sentences interpreting the relationship illustrated in your graph.

## SECOND DATA SET

These categorical data were collected on the proportion of individuals in each of 4 categories (Iceland males and females and Japan males and females) that fell into 4 categories of resistance to the Endoftop Virus (very resistant, resistant, vulnerable, very vulnerable).

	Proportion in Each of Four Categories of Resistance to Endoftop Virus			
	Iceland		Japan	
Categories	Female	Male	Female	Male
<b>Very resistant</b>	0.5	0.25	0	0.5
<b>Resistant</b>	0	0.25	0.25	0.25
<b>Vulnerable</b>	0	0.25	0.25	0.25
<b>Very vulnerable</b>	0.5	0.25	0.5	0

1. Create 4 pie charts with each pie chart representing one of the 4 groups of people.
2. Create a 100% stacked bar graph with 4 bars, each bar representing one of the 4 groups of people.
3. Create a clustered bar graph with 4 clusters, each cluster representing one of the 4 groups of people.
4. Note that each of the 3 types of graphs represents the same data. Write 1 or 2 sentences describing which representation (pie chart, 100% stacked bar graph, or clustered bar graph) conveys the information most rapidly to the audience and why.