



Full Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

## Assignment – Applications for Graphing

For this assignment you are now going to collect and analyze your own data. You must create at least one graph of each type of graph listed below.

### Types of Graphs:

- Bar Graph
- Broken-Line Graph
- Circle Graph

neat

Graphs can be constructed either by hand or digitally (my preference), but each graph must contain all the elements that make a good graph... as a recap:

### Elements of a Good Graph:

- ✓ Made Neatly and Tidy, Easy and Clear to Read
- ✓ Made as Big as Possible
- ✓ Drawn using a ruler, compass, protractor, etc...
- ✓ Graph Title / Caption
- ✓ Axes Labeled w/ Units
- ✓ Appropriate Scale w/ Consistent Spacing.
- ✓ Legend / Colour Coded

### When analyzing your graph consider these questions:

- What does the graph represent and show?
- What trends are there in the data?
- What are the Maximums & Minimums?
- What can you conclude from the graph?
- Can I make a prediction based upon the graph?

**Please answer all questions fully and please staple your completed graphs to this assignment and submit when completed to your best of your ability.**

### Assessment

- **CF:** Ability to construct and proper and complete graph
- **CR:** Ability to articulate your data by choosing the most appropriate graph.
- **MR:** Ability to analyze and interpret the data and graph (i.e. Answer Questions)
- **A:** Ability to apply your knowledge and skill to real world examples/situations



**DO EITHER APPLICATION #1A OR #1B YOU DO NOT HAVE TO DO BOTH!!**

**Application #1a:**

You are looking at making a significant purchase (e.g. vehicle, mountain bike, etc...) but you don't which one you should buy. To assist you with your purchase you decide to make a graph to compare various attributes (e.g. for vehicles you could be interested in horsepower, torque, weight, ground clearance, cargo space, etc...), to see which one offers the best "bang for your buck". You must select at least 3 different items and compare at least 3 different attributes + price. Choose a type of graph that best represents your data.

**NOTE:** that this may be tricky to graph depending on what attributes you select and their units....talk to me to discuss if you encounter this problem.

- a) Why did you select the type of graph to represent your data? Explain your reasoning. **(A & CR)**
  
  
  
  
  
  
  
  
  
  
- b) Based upon your categories are there anomalies in the data? Anything that surprised you after graphing? (Hints: minimums and maximums?) **(MR)**
  
  
  
  
  
  
  
  
  
  
- c) Is there any attribute whose values are...
  - I. Nearly identical to each other? **(CF)**
  
  
  
  
  
  
  
  - II. Vary greatly? **(CF)**
  
  
  
  
  
  
  
  
  
  
- d) Based upon your results, which item appears to offer the best "Bang for your Buck"? Explain. **(A)**
  
  
  
  
  
  
  
  
  
  
- e) Which of the attribute(s) is the most persuasive in helping you make your decision? Explain. **(A)**





### Application #2

Select at least four (4) of your favourite snacks and/or drinks (i.e. treats) you like to consume. Look up the Nutritional Facts on each one. Choose a type of graph that best represents your data. Note: all data should be in units of grams.

- I. Total Fat
  - II. Total Carbohydrates
  - III. Sugar
  - IV. Protein
- a) Why did you select the type of graph to represent your data? Explain your reasoning. **(A & CR)**
- b) Which treat(s) have the...
- I. Highest amount of Sugar? **(CF)**
  - II. Lowest amount of Carbohydrates? **(CF)**
  - III. Highest amount of Protein? **(CF)**
  - IV. Lowest amount of Fats? **(CF)**
- c) Based upon your results is there a particular category of treats you are more drawn to than another (i.e. satisfying a craving)? **(MR)**
- d) Out of your selected treats, which one do you feel is the healthiest? Explain why you feel this way? **(MR)**
- e) Out of your selected snacks, which one do you feel is the least healthy? Explain. **(MR)**
- f) After analyzing your preferences do you feel need to need to switch or alter your snack preferences? Explain. **(A)**





## Application #4

Select your favourite destination or a place you would like to visit and create a graph that compares the average monthly temperature ( $^{\circ}\text{C}$ ) to the that of Revelstoke.

Temperature ( $^{\circ}\text{C}$ )	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Revelstoke, BC	-6.3	-2.6	1.3	6.6	12.3	16	18.7	17.9	12.9	6.5	0.4	-4

- a) Why did you select the type of graph to represent your data? Explain your reasoning. **(A & CR)**
- b) Which location has the hottest temperature and how much hotter is it? **(CF)**
- c) Which location has the coldest temperature and how much colder is it? **(CF)**
- d) Is there a time where the average monthly temperatures are the same? If so when does this occur? **(CF)**