Graphing Exercises

Not all graphs should be bar graphs. There are many different types of graphs. The graph you use depends upon the data you are representing in graphical form. Select the appropriate graph style, decide what should be the independent (x-axis – the horizontal) and dependent (y-axis – vertical) axis. Then draw a graph for each exercise, and attach this sheet to your graphs. Follow the guidelines in the handout you received, "Basic Graphing Rules". *Remember to note the units of measure and label appropriately.*

Graph A: Relationship of Density for Identical Masses of Common Substances

Substance	Mass (g)	Density (g/cm^3)
Wood	10	0.5
Water	10	1.0
Aluminum	10	2.7
Lead	10	11.4

HINT Is the mass information meaningful if it is always 10 grams?

1.   What type of graph are you going to use?_____
2.   What is on the x axis? _____
3.   What is on the y axis? _____

Graph B: Density of Lead Sinkers

Density is the relationship of mass to volume. **Density = Mass/Volume (D=m / V)**
What about slope? What is that?

Slope = $\frac{\text{Rise}}{\text{Run}}$ another way to say it is $\frac{\text{change in y axis}}{\text{change in x axis}}$

# of lead sinkers	Mass (g)	Volume (cm^3)	Density (g/cm^3)
1	22.9	0.5	11.45
2	43.0	3.8	11.3
3	66	5.8	11.4
4	88.2	7.9	11.2

4.   What type of graph are you going to use?_____

5.   What is on the dependent variable? _____

6.   What is on the independent variable? _____

7.   Does this graph represent a mathematical relationship? ____ If so, what?

_____

8.   Under the circumstances, how are you going to treat the data points?

9.   Connect the dots? _____ or Best fit line? _____

Graph C: Earth Science Assignments

Assignments	Percent
Tests	40
Quizzes & Labs	30
Class & Homework	30

What type of graph are you going to use?_____
How do you do that? Write out how you are going to figure this out.

Graph D: Food Preferences

Day of Week	Pizza (slices)	Bagel (1/2)
Mon	3	2
Tue	3	1
Wed	4	0
Thu	1	2
Fri	8	4
Sat	12	6
Sun	2	4

What type of graph are you going to use?_____