

■ **Rules of Graphing**

1. **Identify dependant (y-axis) and independent (x-axis) variables** (“Y depends on X”)

- the dependant variable is the variable you are measuring
- the independent variable is the variable you are testing - or the one that you are changing

2. Establish/calculate a **scale** for each axis

- what is the range for the data?
- how accurate do you need to be?
- what are my graph paper limitations (if any)?

3. **Bar or Line Graph?**

Type of Data	Type of graph
Continuous Data	Line Graph
Discontinuous Data	Bar Graph

4. **Label** the x-axis and y-axis (designate **units** in parenthesis)

5. **Title** the graph: **The Effect of Independent Variable on Dependent Variable** (*same as data tables!)

■ **Practice Examples:** graph the following data sets on the back of this sheet. Make sure to follow all of the rules of graphing.

1. **The Effect of Oil Amount on # Kernels Popped** (hint: graph I.V. vs. Mean)

round to nearest whole number

Amount of Oil (ml)	# of Kernels					Mean # of kernels
	Trials					
	1	2	3	4	5	
5	46	43	46	51	50	
10	43	41	42	42	42	
20	33	35	37	33	34	
30	10	9	8	10	11	

2. **The Effect of Type of Insulation on Temperature**

round to nearest whole number

Type of Insulation	Temperature (F)					Mean Temperature (F)
	Trials					
	1	2	3	4	5	
Type A	80	85	81	86	87	
Type B	73	75	76	75	76	
Type C	84	85	89	86	85	
Type D	69	68	67	67	68	

