■ 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)		# (Mean # of kernels			
	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

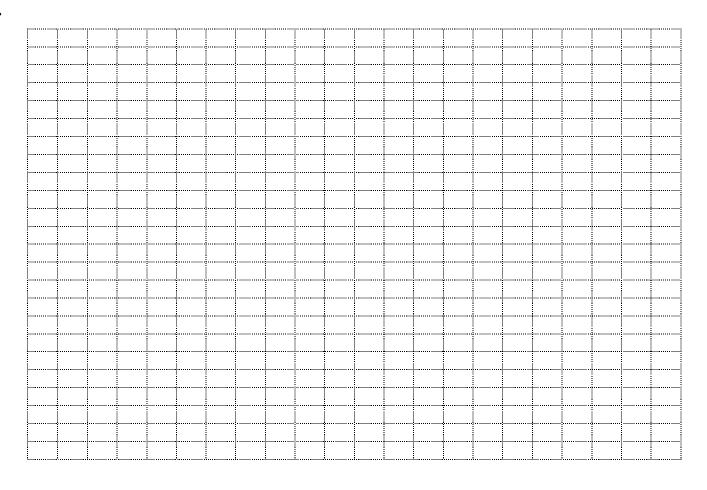
round to nearest whole number

Type of Insulation		Tem	Mean			
			Temperature (F)			
	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	

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3. The Effect of Wax Brand on Snowboard Speed (time)

Wax Brand	Time to Run 500 Meter Course (sec)											
(I.V.)	Trial # 1	#2	#3	#4	#5	#6	#7	#8	#9	#10	Mean Time	
A	56	62	58	57	55	59	61	60	68	59		
В	61	61	63	65	61	63	68	65	59	58		
С	54	53	52	55	56	57	58	54	53	52		
D	58	59	57	58	56	58	58	57	58	58		
No Wax (control)	78	79	78	79	83	85	85	82	83			

