2016

5.1.b Student Group Gas Law Data

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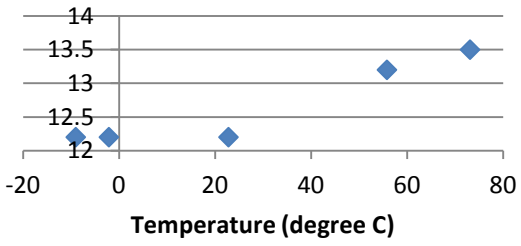
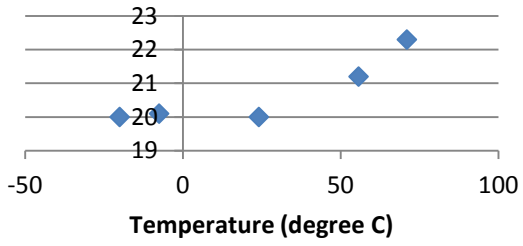
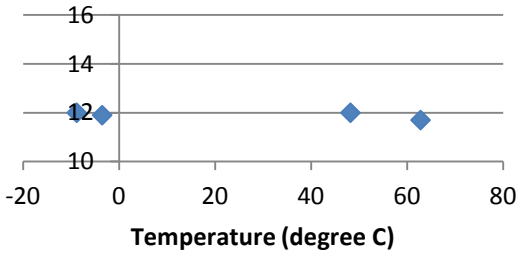
Relationship of gas volume to temperature (Nick, Sean)



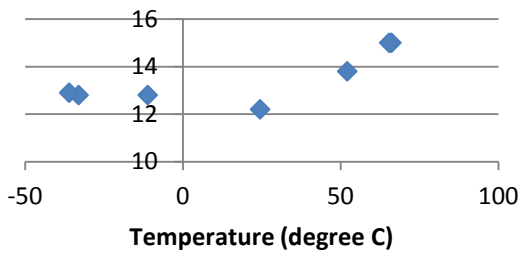
Relationship of gas volume to temperature (Taylor, Kaleigh)



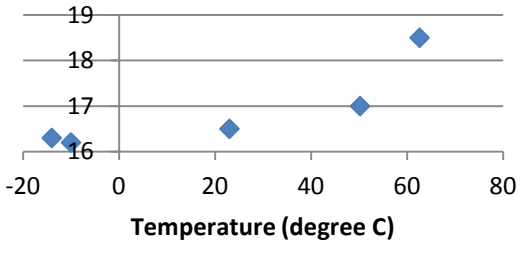
Relationship of gas volume to temperature (Samantha, Eliza,…



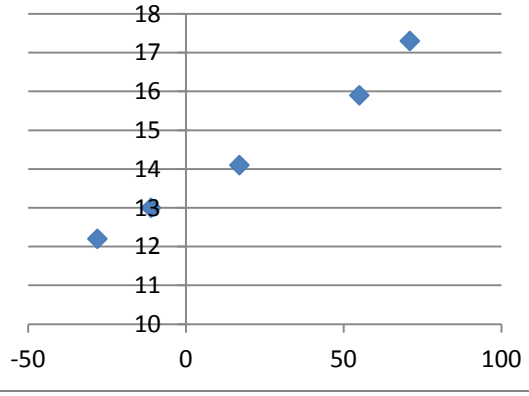
Relationship of gas volume to temperature (EmilyD, AmandaG)

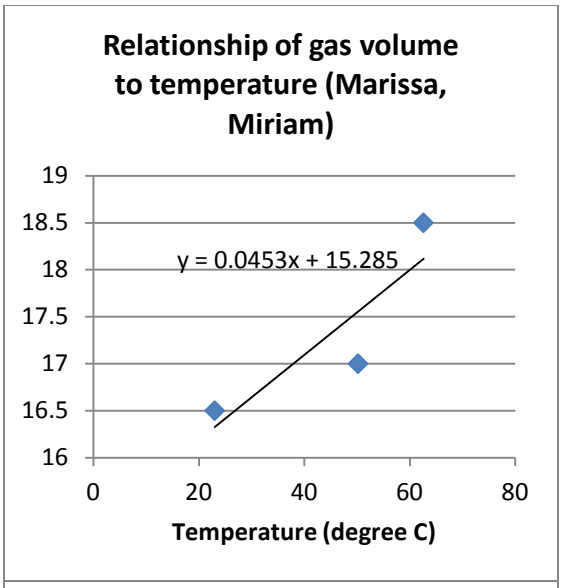


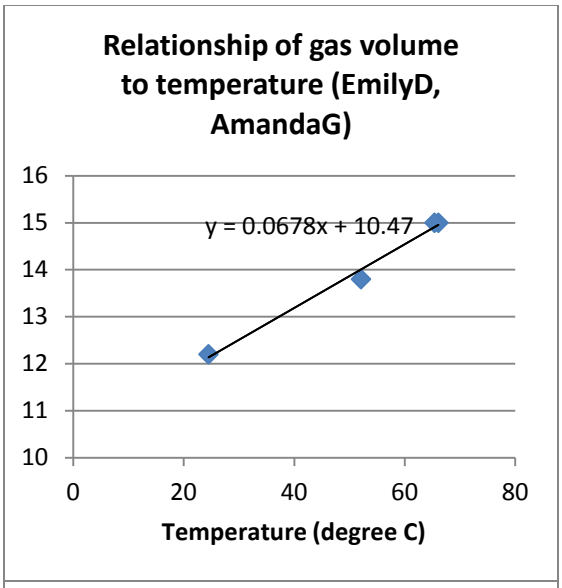
Relationship of gas volume to temperature (Marissa, Miriam)

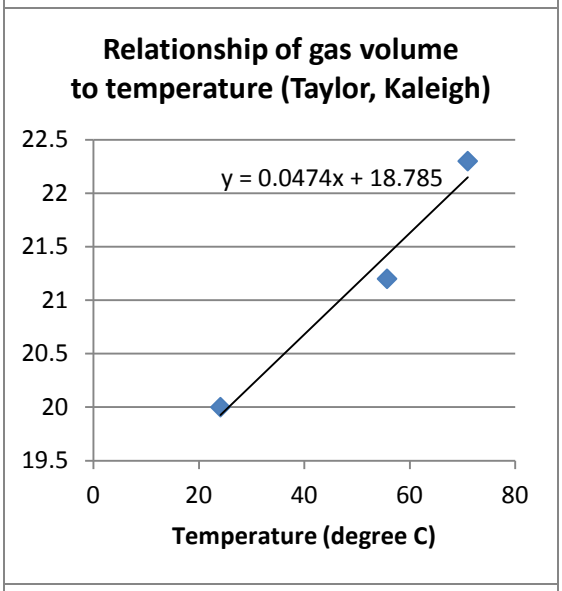


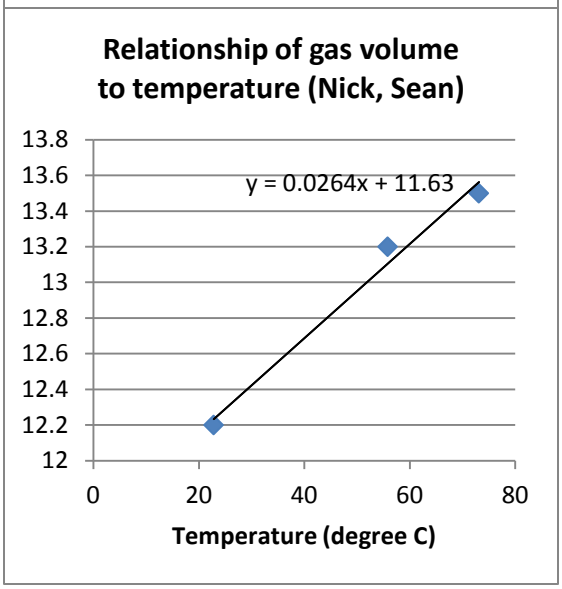
Relationship of Gas volume to temp (CB)

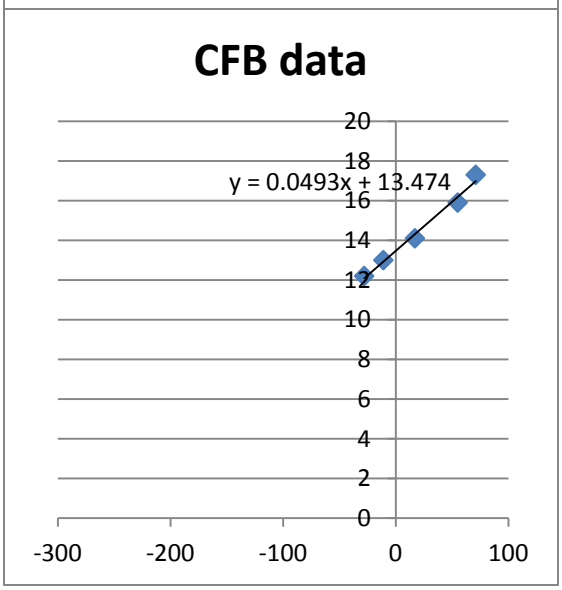



Relationship of gas volume to temperature (Marissa, Miriam)
y = 0.0453x + 15.285
19
18.5
18
17.5
17
16.5
16
0
20
40
60
80
Temperature (degree C)


Relationship of gas volume to temperature (EmilyD, AmandaG)
y = 0.0678x + 10.47
16
15
14
13
12
11
10
0
20
40
60
80
Temperature (degree C)


Relationship of gas volume to temperature (Taylor, Kaleigh)
y = 0.0474x + 18.785
22.5
22
21.5
21
20.5
20
19.5
0
20
40
60
80
Temperature (degree C)


Relationship of gas volume to temperature (Nick, Sean)
y = 0.0264x + 11.63
13.8
13.6
13.4
13.2
13
12.8
12.6
12.4
12.2
12
0
20
40
60
80
Temperature (degree C)


CFB data
y = 0.0493x + 13.474
20
18
16
14
12
10
8
6
4
2
0
-300
-200
-100
0
100

Expt B Sublimation of Dry Ice in syringe

	mass (mg)	volume (mL)	ratio (mL/mg)	
KR CC	24	5.5	0.23	
	22	3.9	0.18	
EmmaJake	22	7	0.32	
	12	5	0.42	
TimJon	16	3	0.19	
	25	7	0.28	
HP AJ	15	4	0.27	
	19	4.5	0.24	
BP EK	20	7	0.35	
	8	1	0.13	
			0.26	average
			0.09	stddev
			0.55	theory

Results of Expt C

Substance	Compressibility?
sand	not (unless there was small air gap)
salt (NaCl)	not (unless there was small air gap)
water	compressed, but only if there was an air bubble
air	compressed, then rebounded (unless some escaped)
TFE (tetrafluoroethane)	compressed, then rebounded (unless some escaped)