

PRESSURE LAW OF IDEAL GASES. 19/11/2019

From PASCO datalogger (1 sample

Absolute
Temperature (°C) Pressure (kPa)

18.3	101.855
18.3	101.822
18.3	101.88
18.3	101.849
18.3	101.836
18.3	101.822
18.3	101.858
18.3	101.906
18.3	101.838
18.3	101.822
18.3	101.831
18.3	101.838
18.3	101.853
18.3	101.869
18.3	101.851
18.3	101.853
18.3	101.831
18.3	101.86
18.3	101.844
18.3	101.833
18.3	101.862
18.3	101.829
18.3	101.862
18.3	101.853
18.3	101.844
18.3	101.836
18.3	101.847
18.3	101.866
18.3	101.855
18.3	101.855
18.3	101.82
18.3	101.866
18.3	101.831
18.3	101.844
18.3	101.836
18.3	101.842
18.3	101.818
18.3	101.842
18.3	101.86

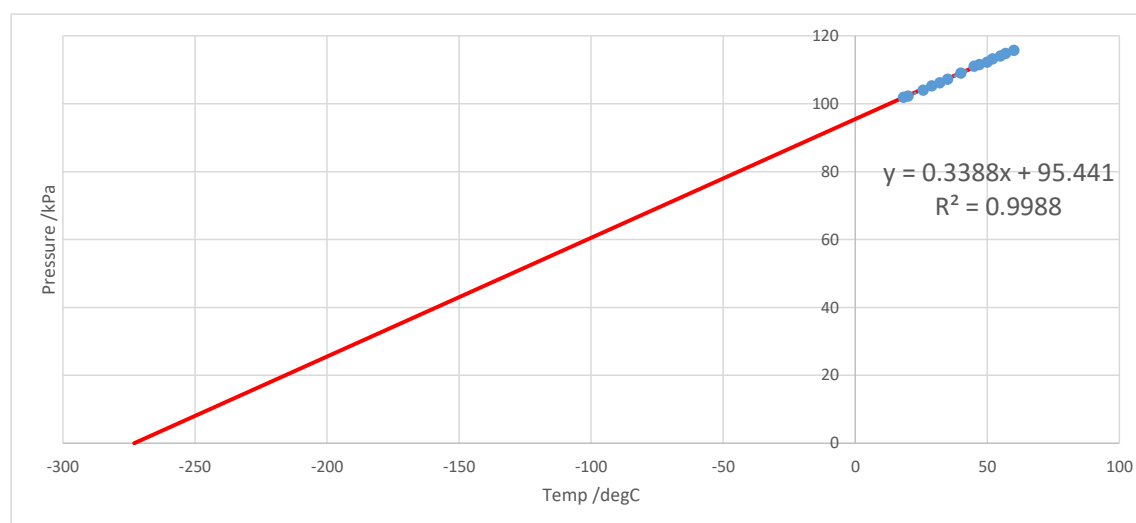
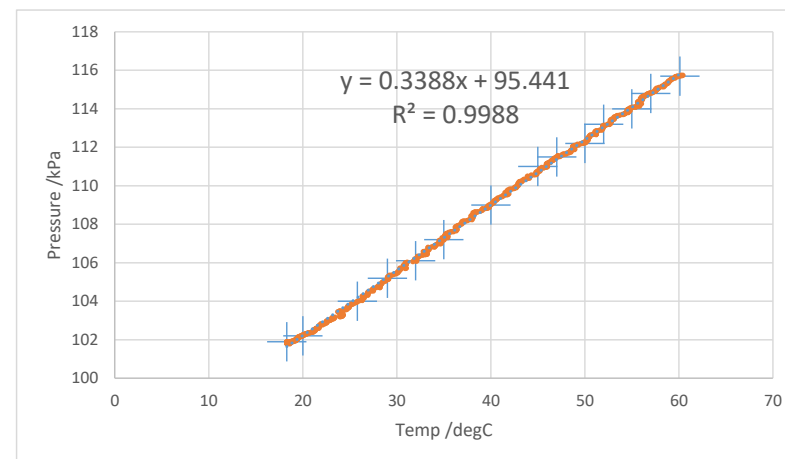
Selected samples

Temperature (°C)	Absolute Pressure (kPa)
18.3	101.9
20	102.2
25.8	104
29	105.2
32	106.1
35	107.2
40	109
45	111
47	111.5
50	112.2
52	113.2
55	114
57	114.8
60.1	115.7

Absolute zero /degC

-281.7

Model	
T /degC	P /kPa
-273	0
18.3	101.9
60	115.7



18.3	101.847
18.3	101.855
18.3	101.866
18.3	101.851
18.3	101.871
18.3	101.829
18.3	101.851
18.3	101.818
18.3	101.82
18.3	101.851
18.3	101.847
18.3	101.818
18.3	101.853
18.3	101.816
18.3	101.836
18.3	101.838
18.3	101.849
18.3	101.829
18.3	101.84
18.3	101.855
18.3	101.866
18.3	101.84
18.3	101.862
18.3	101.842
18.3	101.844
18.3	101.847
18.3	101.831
18.3	101.866
18.3	101.838
18.3	101.858
18.3	101.842
18.3	101.853
18.3	101.811
18.3	101.84
18.3	101.858
18.3	101.822
18.3	101.855
18.3	101.844
18.3	101.818
18.3	101.849
18.3	101.827
18.3	101.836
18.3	101.855
18.3	101.84
18.3	101.842

18.3	101.805
18.3	101.838
18.3	101.86
18.3	101.842
18.3	101.853
18.3	101.851
18.3	101.864
18.4	101.84
18.4	101.825
18.4	101.844
18.4	101.838
18.4	101.866
18.4	101.809
18.4	101.829
18.4	101.847
18.4	101.849
18.5	101.831
18.5	101.831
18.5	101.842
18.5	101.842
18.5	101.86
18.5	101.82
18.5	101.836
18.5	101.838
18.5	101.84
18.6	101.871
18.6	101.831
18.6	101.803
18.6	101.84
18.6	101.838
18.6	101.886
18.6	101.82
18.6	101.88
18.6	101.866
18.7	101.853
18.7	101.869
18.7	101.866
18.7	101.862
18.7	101.871
18.7	101.871
18.7	101.869
18.7	101.888
18.7	101.899
18.8	101.893
18.8	101.913

18.8	101.886
18.8	101.888
18.8	101.915
18.8	101.926
18.8	101.891
18.9	101.937
18.9	101.924
19	101.952
19	101.959
19	101.924
19.1	101.95
19.1	101.97
19.1	101.972
19.2	101.957
19.2	101.961
19.2	101.99
19.2	101.994
19.2	101.996
19.3	102.023
19.3	102.012
19.3	102.018
19.3	102.025
19.3	101.987
19.3	102.071
19.3	102.056
19.4	102.027
19.4	102.058
19.4	102.031
19.4	102.049
19.4	102.049
19.4	102.071
19.4	102.097
19.4	102.073
19.5	102.15
19.5	102.119
19.5	102.148
19.6	102.126
19.6	102.141
19.7	102.166
19.7	102.19
19.7	102.185
19.7	102.166
19.8	102.194
19.8	102.179
19.8	102.203

19.8	102.207
19.9	102.192
19.9	102.212
20	102.218
20	102.262
20	102.264
20.1	102.242
20.1	102.253
20.1	102.269
20.2	102.3
20.2	102.293
20.2	102.295
20.3	102.319
20.4	102.328
20.4	102.297
20.5	102.337
20.5	102.35
20.6	102.359
20.7	102.357
20.9	102.399
21	102.405
21.1	102.449
21.1	102.418
21.1	102.418
21.2	102.462
21.3	102.482
21.3	102.473
21.2	102.487
21.2	102.511
21.2	102.535
21.3	102.522
21.4	102.575
21.4	102.581
21.4	102.59
21.4	102.601
21.4	102.579
21.6	102.625
21.7	102.608
21.7	102.627
21.7	102.667
21.7	102.689
21.7	102.685
21.7	102.711
21.7	102.733
21.8	102.748

21.8	102.761
21.9	102.827
22	102.797
22.1	102.788
22.3	102.83
22.4	102.893
22.5	102.878
22.5	102.889
22.5	102.926
22.5	102.948
22.5	102.984
22.6	102.933
22.6	102.988
22.7	103.012
22.8	103.039
22.9	103.039
22.9	103.01
23	103.058
23.1	103.08
23.2	103.089
23.3	103.118
23.3	103.124
23.1	103.14
23.1	103.151
23.2	103.151
23.4	103.177
23.9	103.21
24	103.204
24	103.25
24.2	103.23
24.3	103.298
24.3	103.289
24.2	103.316
24.1	103.329
24.2	103.333
24.2	103.379
24.1	103.404
23.9	103.423
23.8	103.421
23.7	103.463
23.9	103.505
24.1	103.481
24.2	103.498
24.4	103.549
24.6	103.571

24.7	103.591
24.7	103.619
24.6	103.635
24.7	103.637
24.8	103.683
24.9	103.687
24.9	103.679
24.8	103.694
24.8	103.753
24.8	103.747
24.9	103.769
25	103.784
25.1	103.835
25.2	103.843
25.3	103.87
25.4	103.892
25.5	103.925
25.6	103.942
25.7	103.956
25.8	103.991
25.8	103.997
26	104.044
26.3	104.052
26.3	104.079
26.3	104.105
26.3	104.096
26.4	104.165
26.5	104.169
26.5	104.215
26.4	104.239
26.3	104.268
26.5	104.292
26.7	104.316
26.9	104.327
26.9	104.369
26.9	104.398
26.9	104.431
26.9	104.448
26.9	104.475
27	104.499
27.1	104.525
27.3	104.541
27.5	104.541
27.5	104.58
27.4	104.633

27.5	104.664
27.8	104.716
28.2	104.716
28.2	104.73
28.1	104.752
28	104.802
28.1	104.782
28.2	104.811
28.3	104.87
28.3	104.879
28.3	104.914
28.4	104.941
28.4	104.961
28.5	104.998
28.5	105.005
28.7	105.055
28.8	105.06
28.8	105.079
28.9	105.121
29.1	105.15
29.1	105.18
29.1	105.2
29	105.211
29	105.268
29.1	105.293
29.1	105.273
29.2	105.301
29.2	105.352
29.4	105.356
29.6	105.387
29.8	105.433
29.9	105.444
30	105.482
30.1	105.488
30.1	105.526
30.1	105.535
30.2	105.579
30.3	105.614
30.3	105.653
30.3	105.658
30.3	105.728
30.5	105.713
30.9	105.713
31	105.726
30.9	105.776

30.8	105.807
30.7	105.862
30.7	105.86
30.9	105.889
31	105.913
31	105.961
31	105.983
30.9	105.985
30.9	106.001
31.1	106.027
31.7	106.071
32	106.106
32.1	106.089
32.1	106.166
32	106.194
31.9	106.19
31.9	106.19
32.1	106.216
32.2	106.267
32.2	106.311
32.2	106.328
32.2	106.342
32.4	106.342
32.7	106.401
32.8	106.43
33	106.427
33.2	106.452
33.2	106.467
33.2	106.515
33.1	106.531
32.9	106.592
32.8	106.584
33	106.601
33.3	106.687
33.4	106.682
33.3	106.68
33.4	106.724
33.4	106.786
33.3	106.781
33.3	106.803
33.7	106.836
34	106.823
34.1	106.865
34	106.889
34.1	106.918

34.2	106.938
34.3	106.982
34.6	106.997
34.7	106.999
34.7	107.05
34.6	107.078
34.5	107.1
34.5	107.162
34.6	107.157
34.8	107.153
35	107.206
35	107.201
34.9	107.278
34.8	107.296
35.1	107.322
35.4	107.311
35.4	107.38
35.4	107.373
35.4	107.413
35.3	107.424
35.1	107.439
35.1	107.424
35.2	107.507
35.3	107.534
35.5	107.58
35.7	107.604
35.8	107.617
36	107.619
36.1	107.668
36.3	107.674
36.4	107.736
36.3	107.734
36.3	107.778
36.3	107.804
36.2	107.852
36.3	107.885
36.3	107.892
36.4	107.916
36.5	107.94
36.6	107.94
36.7	107.973
36.8	108.022
36.9	108.024
36.9	108.092
36.9	108.132

37	108.103
37	108.156
37.1	108.173
37.3	108.171
37.5	108.195
37.7	108.244
37.8	108.255
38	108.253
37.9	108.319
37.9	108.308
38	108.341
38.1	108.345
38.1	108.393
38	108.44
37.9	108.424
37.9	108.444
38	108.47
38.2	108.514
38.3	108.563
38.2	108.539
38.2	108.602
38.1	108.609
38.3	108.653
38.5	108.642
38.6	108.651
38.9	108.692
39	108.739
39.1	108.745
39.1	108.809
39.4	108.824
39.6	108.844
39.6	108.849
39.6	108.915
39.8	108.871
39.8	108.934
39.7	108.978
39.8	109.003
39.8	109.005
40	109.025
40	109.055
40.1	109.073
40.2	109.128
40.3	109.13
40.3	109.15
40.3	109.172

40.3	109.218
40.4	109.24
40.5	109.277
40.6	109.271
40.6	109.284
40.7	109.335
40.7	109.361
40.8	109.37
41	109.418
41.2	109.438
41.3	109.478
41.3	109.504
41.5	109.524
41.7	109.544
41.8	109.557
41.9	109.594
41.8	109.609
41.7	109.647
41.5	109.656
41.7	109.704
41.7	109.704
41.7	109.724
41.8	109.772
41.8	109.774
42	109.834
42.2	109.834
42.4	109.867
42.5	109.876
42.5	109.924
42.7	109.915
42.7	109.988
42.8	110.012
42.9	110.023
42.9	110.071
42.9	110.082
42.9	110.069
42.9	110.144
42.9	110.131
43	110.212
43.1	110.23
43.3	110.236
43.3	110.267
43.4	110.298
43.5	110.337
43.7	110.342

43.9	110.41
43.9	110.395
44.1	110.406
43.9	110.432
43.9	110.485
43.9	110.5
44.2	110.507
44.3	110.562
44.6	110.573
44.8	110.608
44.8	110.584
44.9	110.628
44.9	110.683
44.8	110.678
44.8	110.711
44.9	110.74
45	110.788
45.2	110.768
45.2	110.83
45.2	110.79
45.2	110.889
45.3	110.874
45.3	110.896
45.4	110.955
45.6	110.936
45.8	110.969
45.9	110.986
45.9	111.015
46	110.999
46	111.023
45.9	111.076
45.9	111.089
45.9	111.098
45.9	111.149
46	111.155
46	111.158
46	111.184
46.1	111.204
46.3	111.221
46.3	111.248
46.4	111.309
46.5	111.316
46.6	111.351
46.6	111.329
46.7	111.426

46.7	111.424
46.8	111.404
46.8	111.433
46.9	111.488
47	111.481
47	111.498
47.1	111.569
47.3	111.529
47.4	111.549
47.5	111.58
47.6	111.628
47.7	111.646
47.7	111.633
47.8	111.663
48	111.657
48.1	111.703
48.3	111.725
48.3	111.743
48.5	111.756
48.5	111.8
48.5	111.828
48.5	111.839
48.5	111.839
48.6	111.864
48.7	111.881
48.7	111.914
48.7	111.91
48.9	111.892
48.9	111.932
48.7	111.982
48.7	112.015
48.7	112.035
48.7	112.048
48.8	112.055
48.9	112.075
48.9	112.103
49.1	112.108
49.2	112.163
49.3	112.127
49.5	112.193
49.8	112.209
50	112.237
49.8	112.229
49.8	112.248
50.1	112.262

50.2	112.356
50.2	112.35
50.1	112.363
50.3	112.367
50.3	112.387
50.3	112.42
50.3	112.479
50.3	112.499
50.4	112.512
50.4	112.525
50.4	112.519
50.5	112.556
50.5	112.605
50.5	112.613
50.6	112.649
50.8	112.664
51	112.679
51.2	112.673
51.2	112.697
51.2	112.699
51.1	112.737
51.1	112.807
51.1	112.807
51.1	112.822
51.2	112.86
51.4	112.86
51.6	112.899
51.8	112.902
51.8	112.943
51.9	113
51.9	113.009
51.9	113.02
51.9	113.011
51.9	113.055
51.9	113.091
51.9	113.115
51.9	113.108
52	113.154
52.2	113.143
52.4	113.198
52.6	113.194
52.6	113.227
52.6	113.245
52.7	113.245
52.7	113.238

52.7	113.282
52.7	113.311
52.8	113.322
52.8	113.355
52.7	113.359
52.7	113.416
52.8	113.453
52.9	113.473
53	113.453
53.1	113.497
53.1	113.537
53.1	113.467
53.1	113.574
53.2	113.563
53.2	113.596
53.4	113.636
53.4	113.647
53.5	113.647
53.7	113.682
54	113.709
54.1	113.709
54.2	113.733
54.3	113.761
54.3	113.772
54.4	113.812
54.5	113.819
54.6	113.836
54.6	113.814
54.7	113.856
54.8	113.907
54.6	113.931
54.5	113.933
54.5	113.953
54.6	113.983
54.6	113.968
54.7	113.981
54.8	114.043
54.9	114.049
55	114.082
55.2	114.091
55.4	114.109
55.4	114.098
55.6	114.151
55.8	114.148
55.7	114.166

55.6	114.192
55.6	114.232
55.7	114.269
56	114.263
55.9	114.252
55.9	114.252
55.9	114.287
55.8	114.327
55.7	114.324
55.6	114.355
55.6	114.36
55.7	114.395
55.8	114.373
55.9	114.428
56	114.454
56	114.452
56.1	114.472
56.1	114.502
56.1	114.509
56	114.524
56	114.527
55.9	114.544
56	114.601
56	114.595
56.1	114.637
56.2	114.663
56.3	114.641
56.4	114.694
56.4	114.681
56.6	114.747
56.6	114.731
56.6	114.72
56.6	114.764
56.6	114.762
56.7	114.791
56.8	114.799
56.9	114.832
57	114.826
57.1	114.83
57.2	114.859
57.3	114.885
57.4	114.903
57.5	114.92
57.5	114.944
57.5	114.922

57.5	114.936
57.5	114.977
57.6	114.971
57.6	114.991
57.5	114.96
57.5	115.004
57.6	115.032
57.6	115.065
57.7	115.074
57.8	115.061
57.8	115.079
57.9	115.114
58.2	115.151
58.4	115.158
58.3	115.167
58.2	115.175
58.4	115.224
58.4	115.213
58.5	115.222
58.5	115.255
58.5	115.277
58.6	115.285
58.7	115.314
58.8	115.323
58.8	115.369
58.8	115.397
58.9	115.373
58.9	115.397
58.9	115.43
58.9	115.444
59	115.466
59.1	115.501
59.1	115.525
59.2	115.525
59.2	115.558
59.3	115.571
59.3	115.578
59.5	115.604
59.6	115.615
59.6	115.657
59.6	115.672
59.7	115.675
59.8	115.703
59.9	115.681
60.1	115.71

60.2	115.749
60.3	115.73
60.4	115.741