

Pressure	Height	Temperature	Dewpoint	Relative Humidity	Mixing Ratio	DRCT	SKNT	THTA	THTE	
hPa	m	C	C	%	g/kg	deg	knot	K	K	
1021	81		0	-1.3	91	3.42	320	5	271.5	280.9
1013	143		3.8	-1.2	70	3.47	328	5	275.9	285.6
1009	174		4.4	-0.3	72	3.72	331	6	276.8	287.2
1000	245		4.4	0.1	74	3.87	340	6	277.6	288.4
992.8	304		4.4	0.1	74	3.9	345	6	278.1	289.1
984	377		4.4	0.1	74	3.93	345	6	278.8	289.9
963	553		5.4	-1.6	61	3.55	345	8	281.6	291.7
956.4	609		5.3	-1.9	59	3.48	345	8	282.1	292.1
940	751		5.2	-2.8	56	3.32	345	8	283.3	292.9
921.4	914		3.8	-3.3	60	3.26	345	8	283.5	292.9
919	935		3.6	-3.4	60	3.25	344	8	283.5	292.9
898	1122		2.6	-4.4	60	3.09	335	7	284.4	293.4
887.3	1219		1.7	-5.3	60	2.92	330	7	284.4	292.9
850	1564		-1.5	-8.5	59	2.38	310	7	284.6	291.6
822.2	1828		-2.4	-14.1	41	1.58	295	11	286.3	291.1
820	1850		-2.5	-14.5	39	1.52	295	11	286.4	291.1
794	2107		0.2	-12.8	37	1.81	290	15	292	297.6
791.4	2133		0.1	-12.9	37	1.8	290	15	292.1	297.8
761.7	2438		-1	-14	37	1.71	275	13	294.1	299.5
754	2520		-1.3	-14.3	37	1.68	268	14	294.7	300
735	2724		0.2	-18.8	22	1.19	252	18	298.5	302.4
733.2	2743		0.1	-18.8	23	1.19	250	18	298.6	302.5
700	3113		-1.7	-18.7	26	1.26	240	25	300.6	304.7
679.2	3352		-2.6	-19.6	26	1.19	240	26	302.1	306.1
661	3568		-3.5	-20.5	26	1.14	247	27	303.5	307.3
653.4	3657		-4.1	-20.9	26	1.12	250	28	303.8	307.5
628.3	3962		-6.3	-22.1	27	1.04	260	31	304.8	308.3
604.1	4267		-8.4	-23.3	29	0.97	260	32	305.7	309
558.5	4876		-12.8	-25.8	33	0.84	250	42	307.6	310.5
557	4897		-12.9	-25.9	33	0.84	250	42	307.6	310.5
542	5104		-14.9	-24.9	42	0.94	246	41	307.6	310.9
536.5	5181		-15.4	-25.6	41	0.89	245	41	308	311
500	5710		-18.7	-30.7	34	0.6	240	45	310.2	312.3

THTV

K

272.1

276.5

277.5

278.2

278.8

279.5

282.2

282.7

283.9

284.1

284.1

284.9

284.9

285

286.6

286.7

292.3

292.5

294.5

295

298.7

298.8

300.8

302.3

303.7

304

304.9

305.9

307.7

307.8

307.8

308.1

310.3

Chart Instructions: Fill in the chart below to calculate the volume of a cylinder. The formula for volume of a cylinder is $V=r^2 \cdot h$, where r is the radius and h is the height. Enter the appropriate FORMULAS into columns C and D to calculate the radius and volume.

Cylinder Height [cm]		5.5
Diameter [cm]	Radius [cm]	Cylinder Volume [cm ³]
1	0.5	1.375
2	1	5.5
3	1.5	12.375
4	2	22
5	2.5	34.375
10	5	137.5

Scatterplot
Once you have calculated the volume, create a scatterplot. Your plot should show the relationship between the diameter and the volume.



der with height 5.5 cm and the diameters given. (10 points)

r is the height.

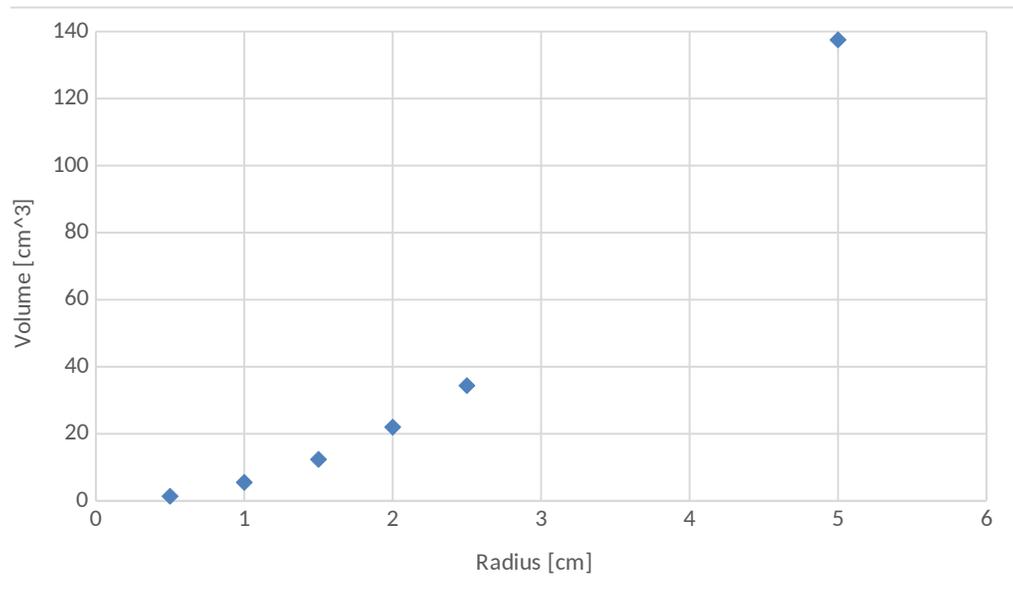
radius and volume. DO NOT simply type numbers into the cells.

Part Instructions

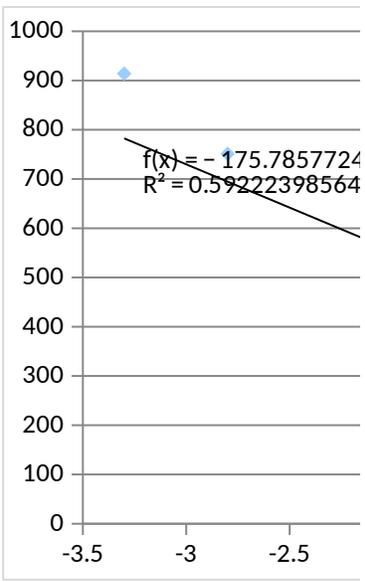
have filled in the chart, create a scatterplot of the data in the space below.

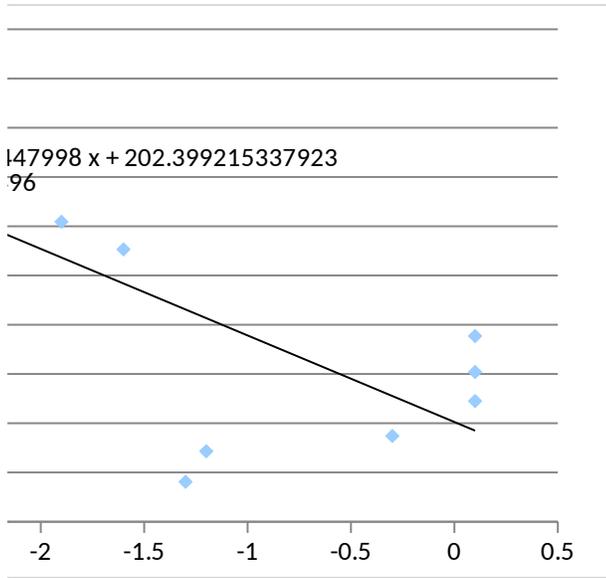
should have the following:

1. Radius on the x axis, volume on the y axis (5 pts)
2. Axis labels with QUANTITY and UNIT (5 pts)



Atmospheric Data: Little Rock, AK				
Height (m)	Pressure (hPa)	Temperature (°C)	Dewpoint (°C)	Relative Humidity (%)
81	1021	0	-1.3	91
143	1013	3.8	-1.2	70
174	1009	4.4	-0.3	72
245	1000	4.4	0.1	74
304	992.8	4.4	0.1	74
377	984	4.4	0.1	74
553	963	5.4	-1.6	61
609	956.4	5.3	-1.9	59
751	940	5.2	-2.8	56
914	921.4	3.8	-3.3	60
935	919	3.6	-3.4	60
1122	898	2.6	-4.4	60
1219	887.3	1.7	-5.3	60
1564	850	-1.5	-8.5	59
1828	822.2	-2.4	-14.1	41
1850	820	-2.5	-14.5	39
2107	794	0.2	-12.8	37
2133	791.4	0.1	-12.9	37
2438	761.7	-1	-14	37
2520	754	-1.3	-14.3	37
2724	735	0.2	-18.8	22





<u>pg</u>	<u>1</u>	<u>2</u>	<u>3</u>
	8	8	6
	6	5	5
	4	5	5
	5		4
	6		6
			3
			4
	29	18	33

4

5

5

10

20

Height	Males		Females	
	Count	Percentage	Count	Percentage
5'2"	0		1	
5'6"	1		3	
5'9"	1		2	
5'10"	3		0	
5'11"	2		0	

points	paper			total		
	online	pg1	pg2			pg3
		6	8	8	5	
		6	6	5	5	
		8	5		6	
		6	4		3	
		3	6		3	
		3			4	
sum		32	29	13	26	100