Toronto_60435_2019_Day188to194	3
Toronto_60435_2019_Day189to195	4
Toronto_60435_2019_Day190to196	5
Toronto_60435_2019_Day191to197	6
Toronto_60435_2019_Day192to198	7
Toronto_60435_2019_Day193to199	8
Toronto_60435_2019_Day194to200	9
Toronto_60435_2019_Day195to201	10
Toronto_60435_2019_Day1to7	11
Toronto_60435_2019_Day2to8	12
Toronto_60435_2019_Day3to9	13
Toronto_60435_2019_Day4to10	14
Toronto_60435_2019_Day5to11	15
Toronto_60435_2019_Day6to12	16
Toronto_60435_2019_Day7to13	
Toronto_60435_2019_Day8to14	18
Toronto_60435_2019_Day9to15	19
Toronto_60435_2019_Day10to16	20
Toronto_60435_2019_Day11to17	21
Toronto_60435_2019_Day12to18	22
Toronto_60435_2019_Day13to19	23
Toronto_60435_2019_Day14to20	24
Toronto_60435_2019_Day15to21	25
Toronto_60435_2019_Day180to186	26
Toronto_60435_2019_Day181to187	27
Toronto_60435_2019_Day182to188	28
Toronto_60435_2019_Day183to189	29
Toronto_60435_2019_Day184to190	30
Toronto_60435_2019_Day185to191	31
Toronto_60435_2019_Day186to192	32

Toronto_60435_2019_Day188to194.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day188to194.csv dataset used in CHM 135 Experiment 1.

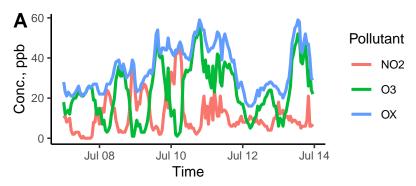
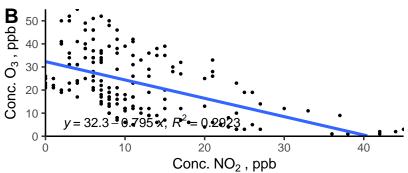


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.



Pollutant sd median min mean max NO₂ 11.6 9.2 0 9 45 О3 23.1 13.5 22 1 55 OX11.5 32 16 59 34.7 NO₂_8hr 38 11.7 7.6 9 0 O3_8hr 12.0 5 23.2 21 49 OX 8hr 10.8 34.9 33 17 55

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day189t0195.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day189to195.csv dataset used in CHM 135 Experiment 1.

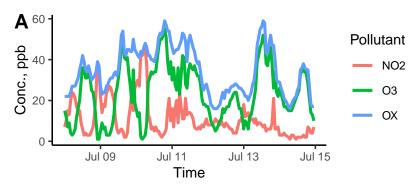
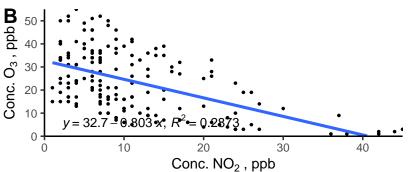


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.



Pollutant sd median min mean max NO₂ 8 11.2 9.1 1 45 О3 13.6 23 1 23.7 55 OX34.9 11.6 34 16 59 NO₂_8hr 38 11.3 2 7.5 9 O3_8hr 5 24.1 11.9 24 49 OX 8hr 35.4 10.5 34 17 55

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day190to196.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day190to196.csv dataset used in CHM 135 Experiment 1.

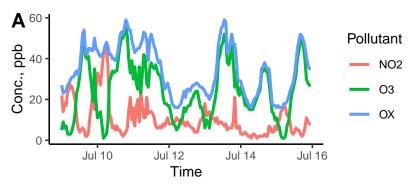
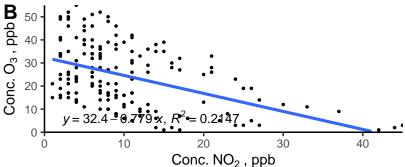


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.



Pollutant sd median min mean max NO₂ 8 8.2 10.3 1 45 О3 13.8 24 1 24.4 55 OX34.7 12.4 35 16 59 NO₂_8hr 10.2 6.9 2 9 37 O3_8hr 24.6 12.1 24 4 49 OX 8hr 34.8 11.6 16 34 55

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day191t0197.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day191to197.csv dataset used in CHM 135 Experiment 1.

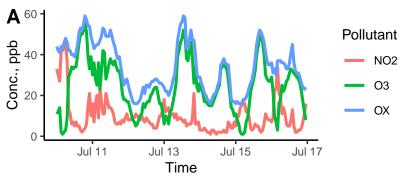


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

	= 31.3-0.697	$x, R^2 = 0.1958$	• • •	•
0 +	10	20	30	40
		Conc. NO ₂ ,	ppb	

Pollutant sd median min mean max NO₂ 8 9.9 8.3 1 45 О3 13.1 24 1 24.4 55 OX34.3 12.0 35 16 59 NO₂_8hr 8 2 38 6.3 9.4 O3_8hr 24.9 11.4 24 4 49 OX 8hr 11.2 16 34.3 34 55

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day192to198.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day192to198.csv dataset used in CHM 135 Experiment 1.

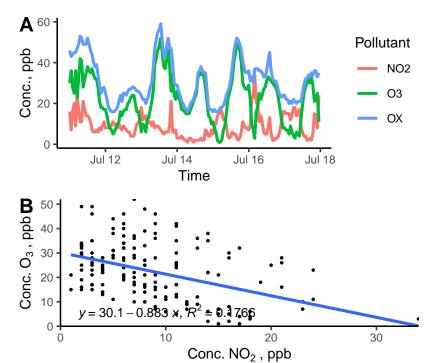


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	8.9	5.7	8	1	34
O ₃	22.2	11.9	22	1	52
OX	31.2	10.8	29	16	59
NO2_8hr	8.8	4.3	8	2	21
O3_8hr	22.1	10.5	21	4	44
OX_8hr	30.9	9.9	29	16	51

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day193to199.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day193to199.csv dataset used in CHM 135 Experiment 1.

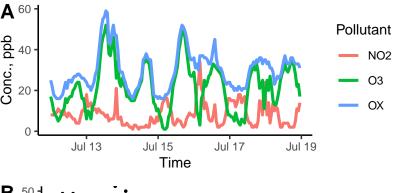


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

B 50 on $x = 30$	$.2-1.18 \times , R^2 = 0$	3167	
0	10	20	30
	Con	c. NO ₂ , ppb	

Pollutant mean sd median min max NO₂ 8 8.3 5.5 1 34 О3 21.4 11.6 21 1 52 OX29.7 9.6 29 16 59 NO₂_8hr 8.3 8 2 4.2 21 O3_8hr 21.6 10.1 21 4 45 OX 8hr 8.6 29.8 29 16 52

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day194t0200.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day194to200.csv dataset used in CHM 135 Experiment 1.

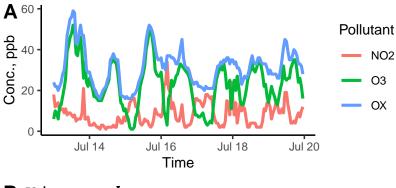


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

	$-1.11 x, R^2 = 0$	o:34 qo;	
0	10	20	30
	Con	ic. NO ₂ , ppb	

Pollutant sd median min mean max NO₂ 8 8.5 5.7 1 34 О3 23.1 11.3 24 1 52 OX31.6 9.4 32 16 59 NO₂_8hr 8.4 8 2 4.2 21 O3_8hr 9.6 23.4 23 4 45 OX 8hr 31.7 8.3 16 33 53

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day195t0201.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day195to201.csv dataset used in CHM 135 Experiment 1.

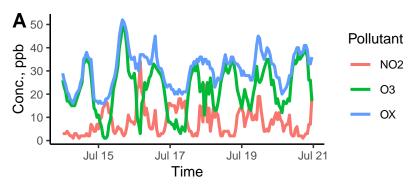
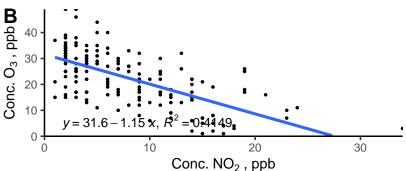


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.



Pollutant sd median min mean max NO₂ 8.0 5.8 7 1 34 О3 22.4 10.3 22 1 49 OX8.0 30.4 32 16 52 NO₂_8hr 8.1 8 2 21 4.4 O3_8hr 8.9 22.3 22 4 43 OX 8hr 31 16 48 30.4 7.0

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day1to7.csv

10

The results below are what the student results should look like for the Toronto_60435_2019_Day1to7.csv dataset used in CHM 135 Experiment 1.

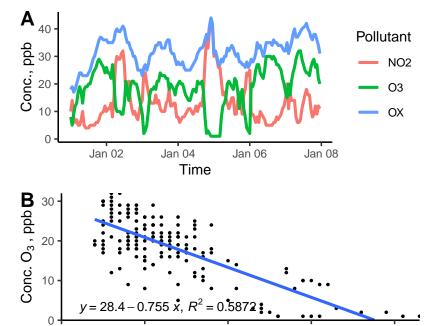


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	13.4	7.9	11	4	43
O ₃	18.3	7.8	20	1	32
OX	31.7	5.3	32	17	44
NO2_8hr	13.5	6.9	12	5	36
O3_8hr	18.4	6.7	19	1	30
OX_8hr	31.9	4.6	32	20	40

Conc. NO₂, ppb

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day2to8.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day2to8.csv dataset used in CHM 135 Experiment 1.

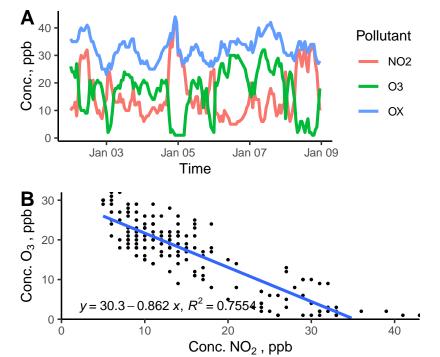


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	15.7	8.6	13	5	43
O ₃	16.8	8.6	18	1	32
OX	32.5	4.4	33	23	44
NO2_8hr	15.7	7.4	13	5	36
O3_8hr	16.8	7.5	18	1	30
OX_8hr	32.5	3.9	33	25	40

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day3to9.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day3to9.csv dataset used in CHM 135 Experiment 1.

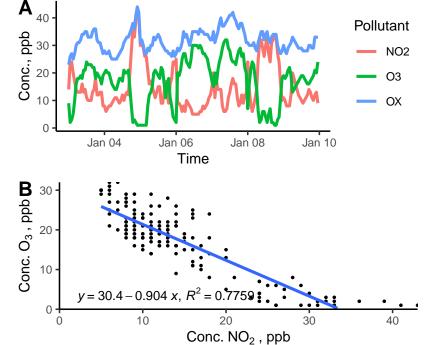


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	14.8	8.2	12	5	43
O ₃	17.0	8.4	19	1	32
OX	31.8	4.1	32	23	44
NO2_8hr	14.8	7.0	13	5	36
O3_8hr	17.1	7.4	18	1	30
OX_8hr	32.0	3.4	32	26	40

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day4to10.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day4to10.csv dataset used in CHM 135 Experiment 1.

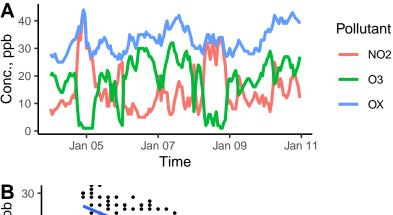


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Courc. O ³ , ppb B 30 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	y = 31.1 - 0.871 x	$x, R^2 = 0.7109$	• • • • • • • • • • • • • • • • • • • •	•••
0	10	20	30	40
		Conc. NO ₂ , p	pb	

Pollutant sd median min mean max NO₂ 8.2 15.1 12 5 43 О3 18.0 8.5 32 20 1 OX 33.0 4.7 33 25 44 NO₂_8hr 15.2 7.0 5 36 13 O3_8hr 18 17.8 7.6 1 30 OX 8hr 26 33.0 4.1 33 41

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day5to11.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day5to11.csv dataset used in CHM 135 Experiment 1.

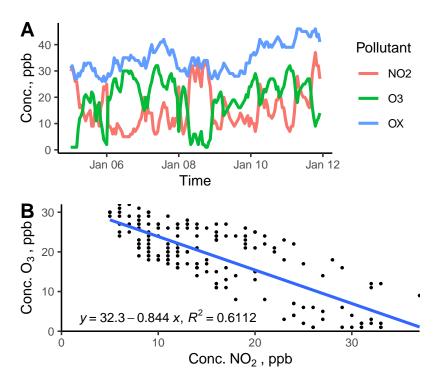


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	15.6	7.8	14	5	37
O ₃	19.1	8.4	21	1	32
OX	34.7	5.4	34	26	46
NO2_8hr	15.0	6.0	14	5	30
O3_8hr	19.6	7.1	21	3	30
OX_8hr	34.7	5.0	33	27	45

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day6to12.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day6to12.csv dataset used in CHM 135 Experiment 1.

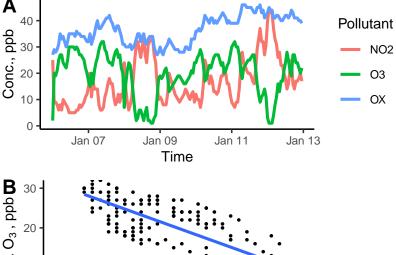


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O3, ppb			:.·.	•
8 0	y = 32.1 – 0.738	$x, R^2 = 0.6582^{\circ}$ Conc. NO ₂	30	40

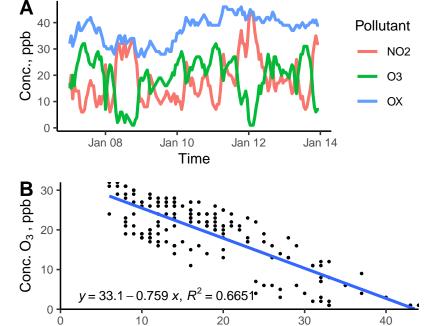
Pollutant sd median min mean max NO₂ 16.7 9.0 14 5 44 О3 19.8 8.2 32 22 1 OX 36.5 5.3 36 27 46 NO₂_8hr 16.8 8.0 5 14 39 O3_8hr 19.8 22 7.3 3 30 OX 8hr 28 36.6 5.0 36 45

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day7to13.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day7to13.csv dataset used in CHM 135 Experiment 1.



Conc. NO₂, ppb

Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

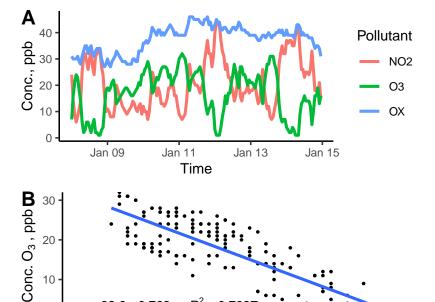
Pollutant	mean	sd	median	min	max
NO ₂	18.1	8.6	16	6	44
O ₃	19.4	8.0	21	1	32
OX	37.4	5.1	39	27	46
NO2_8hr	17.9	7.2	16	9	39
O3_8hr	19.6	6.9	21	3	30
OX_8hr	37.5	4.9	39	28	45

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day8to14.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day8to14.csv dataset used in CHM 135 Experiment 1.



y = 32.6 - 0.763 x, $R^2 = 0.7097$

10

Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	20.7	9.4	19	6	44
O ₃	16.8	8.5	18	1	32
OX	37.5	5.1	39	27	46
NO2_8hr	20.9	8.2	18	10	39
O3_8hr	16.9	7.7	18	2	29
OX_8hr	37.7	4.9	39	28	45

20

Conc. NO₂, ppb

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Students are **not** expected to calculate *mean*, *sd*, and *median* of 8 hr averages. If student sd values differ slightly from provided sd values, they may have used the STDEV.P function rather than STDEV.S in Excel calculations. Do not substract points, but make a note of it.

4.9

45

Toronto_60435_2019_Day9to15.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day9to15.csv dataset used in CHM 135 Experiment 1.

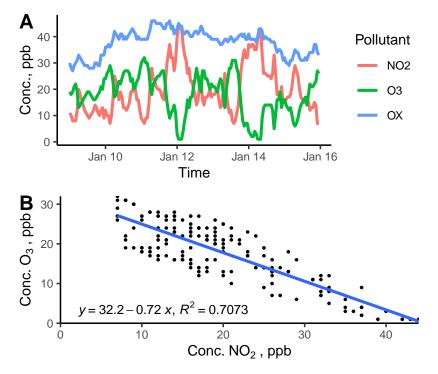


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	19.7	9.1	18	7	44
O ₃	18.0	7.8	19	1	32
OX	37.7	4.9	39	27	46
NO2_8hr	20.1	7.9	18	10	39
O3_8hr	17.8	6.9	19	2	30
OX_8hr	37.9	4.6	39	28	45

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day10to16.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day10to16.csv dataset used in CHM 135 Experiment 1.

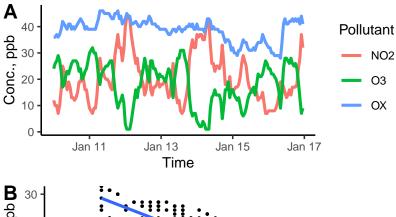


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Couc. O3, ppb 80.	y = 34.5 – 0.793 x	$x, R^2 = 0.7663$		
O	0 10	20	30	40
		Conc. NO ₂ ,	ppb	

Pollutant sd median min mean max NO₂ 18 20.4 7 9.0 44 О3 8.1 18.4 20 1 32 OX 28 38.7 4.3 39 46 NO₂_8hr 20.4 8 18 7.7 39 O3_8hr 18.3 21 2 7.1 30 OX 8hr 38.7 40 29 4.1 45

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day11to17.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day11to17.csv dataset used in CHM 135 Experiment 1.

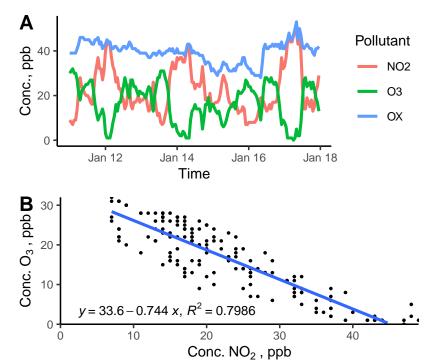


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	22.7	10.6	20	7	49
O ₃	16.7	8.8	18	O	32
OX	39.4	4.8	40	28	53
NO2_8hr	23.0	9.4	20	8	46
O3_8hr	16.4	7.6	18	1	29
OX_8hr	39.4	4.5	40	29	48

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day12to18.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day12to18.csv dataset used in CHM 135 Experiment 1.

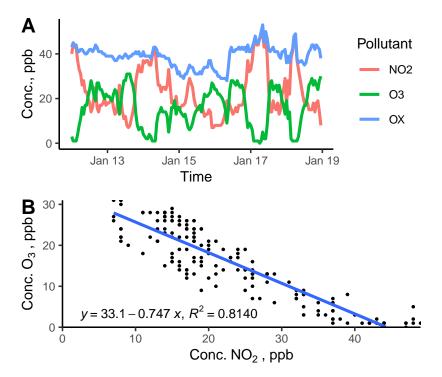


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	23.0	10.9	19	7	49
O ₃	16.0	9.0	17	O	31
OX	39.0	4.8	40	28	53
NO2_8hr	22.8	9.4	19	8	46
O3_8hr	16.0	7.7	17	1	29
OX_8hr	38.8	4.3	40	29	48

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day13to19.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day13to19.csv dataset used in CHM 135 Experiment 1.

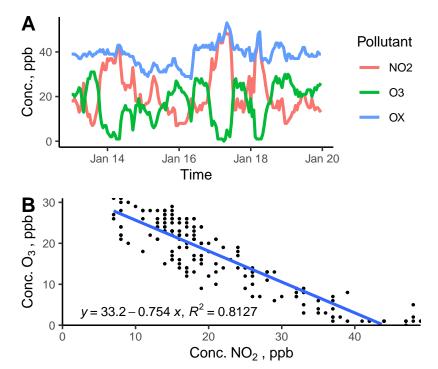


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	21.5	10.5	18	7	49
О3	17.0	8.8	19	O	31
OX	38.5	4.6	39	28	53
NO2_8hr	21.7	9.4	18	8	47
O3_8hr	16.8	7.8	18	1	29
OX_8hr	38.4	4.1	39	29	48

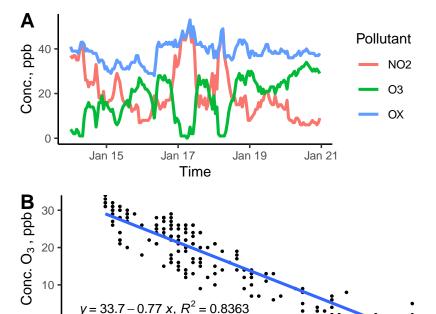
Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day14t020.csv

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The results below are what the student results should look like for the Toronto_60435_2019_Day14to20.csv dataset used in CHM 135 Experiment 1.



20

Conc. NO₂ , ppb

Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Pollutant	mean	sd	median	min	max
NO ₂	20.2	11.3	17	6	49
О3	18.1	9.5	20	0	34
OX	38.3	4.6	38	28	53
NO2_8hr	20.1	10.1	17	6	46
O3_8hr	18.2	8.5	20	1	32
OX_8hr	38.3	4.2	39	29	48

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day15t021.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day15to21.csv dataset used in CHM 135 Experiment 1.

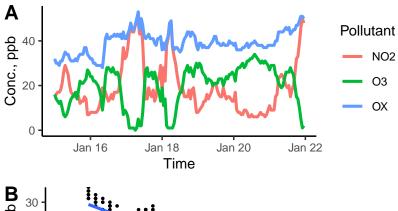


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Courc. O3, ppb 8	y = 33.7 - 0.718	$3x, R^2 = 0.80$	13	:	• •
0	10	20 Conc. No	30 O ₂ , ppb	40	50

Pollutant	mean	sd	median	min	max
NO2	19.3	11.3	16	6	50
O ₃	19.8	9.1	22	O	34
OX	39.2	5.2	39	28	53
NO2_8hr	18.9	9.9	16	6	46
O3_8hr	20.2	8.1	22	1	32
OX_8hr	39.1	4.4	39	29	49

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day180to186.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day180to186.csv dataset used in CHM 135 Experiment 1.

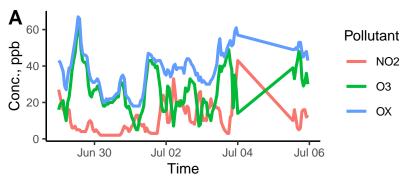
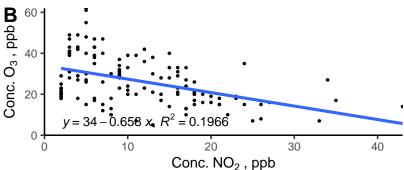


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.



Pollutant sd median min mean max NO₂ 8.1 11.1 9 2 43 О3 26.7 12.1 24 5 62 OX38 18 37.8 11.2 67 NO₂_8hr 10.8 6.3 10 2 25 O3_8hr 26.8 10.1 25 9 51 OX 8hr 37.6 10.3 38 18 57

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day181to187.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day181to187.csv dataset used in CHM 135 Experiment 1.

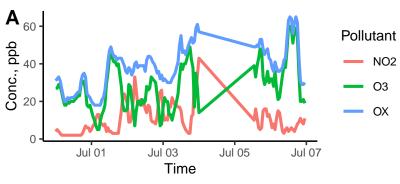


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	30 - 20 - 10 -	y = 34.7 - 0.0	$369.x, R^2 = 0.1$	• 771 ••	
	0 +	10	20 Conc. N	10_2 , ppb	40

Pollutant sd median min mean max NO₂ 10.6 7.9 9 2 43 О3 12.6 27.6 27 5 60 OX38.2 38 18 65 11.7 NO₂_8hr 10.8 6.1 10 2 25 O3_8hr 27.8 10.6 26 9 57 OX 8hr 18 38.5 10.7 62 39

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day182to188.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day182to188.csv dataset used in CHM 135 Experiment 1.

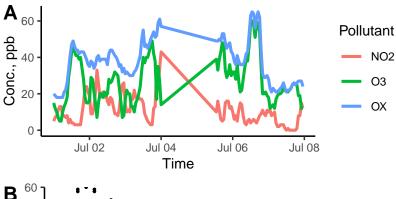


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	30 - 20 -	y = 34.3-	0.688. <i>x</i>	r , $R^2 = 0.1770$	•••	· ·	•
	0 +		10	20 Conc. NO ₂	30 ₂ , ppb	40	

Pollutant sd median min mean max NO₂ 10.9 0 7.9 9 43 О3 26.8 12.9 23 5 60 OX38 18 65 37.7 11.9 NO₂_8hr 6.0 11.0 10 0 25 O3_8hr 10.7 26 27.5 9 57 OX 8hr 18 38.4 10.6 62 39

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day183to189.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day183to189.csv dataset used in CHM 135 Experiment 1.

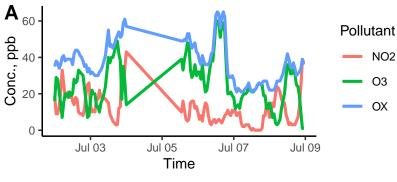


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	30 - 20 -	y = 35 -	0.798 <i>x</i> ,	$R^2 = 0.2718$	•	,
	0 +		10	20 Conc. NO ₂ , ppb	30	40

Pollutant sd median min mean max NO₂ 11.8 8.5 10 o 43 О3 25.6 13.0 23 1 60 OX36 37.4 11.3 21 65 NO₂_8hr 11.3 6.0 11 0 25 O3_8hr 6 26.1 10.9 24 57 OX 8hr 10.6 22 62 37.4 37

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day184t0190.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day184to190.csv dataset used in CHM 135 Experiment 1.

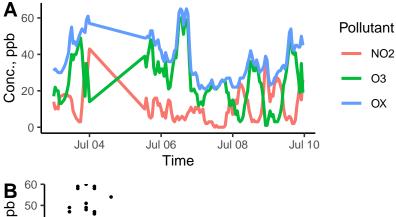


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	20 -	<i>y</i> = 35.9	-0.895	x, R ² = 0,2094		•
	0 1		10	20 Conc. NO ₂	, ppb	40

Pollutant sd median min mean max NO₂ 8.7 11.3 10 0 43 О3 25.8 14.2 24 1 60 OX37.1 11.9 35 21 65 NO₂_8hr 11.1 6.4 10 0 25 O3_8hr 26.0 26 12.4 5 57 OX 8hr 37.1 11.0 36 22 62

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day185t0191.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day185to191.csv dataset used in CHM 135 Experiment 1.

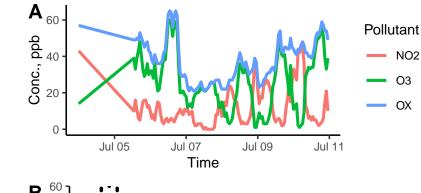


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	30 - 20 - 10 -	y = 36.8 - 0.919	$x, R^2 = 0.4014$	•	•
	0 +	10	20	30	40
			Conc. NO ₂ ,	ppb	

Pollutant	mean	sd	median	min	max
NO ₂	12.0	10.5	9	О	45
O ₃	25.8	15.2	25	1	60
OX	37.8	11.8	38	21	65
NO2_8hr	11.8	8.5	9	O	38
O3_8hr	25.3	13.3	24	5	57
OX_8hr	37.1	10.5	37	22	62

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day186to192.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day186to192.csv dataset used in CHM 135 Experiment 1.

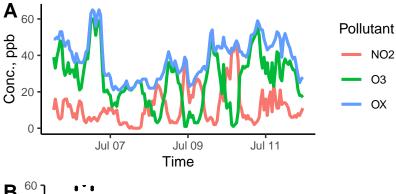


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	30 - 20 - 10 -	y = 37.4 - 0	.91 x, R ² =	0,3675		•	
	0 +	1	0	20	30	40	•
			Co	nc. NO ₂ ,	ppb		

Pollutant sd median min mean max NO₂ 11.7 9.5 9 o 45 О3 26.7 14.2 27 1 60 OX38.4 11.3 39 21 65 NO₂_8hr 11.8 7.8 38 10 0 O3_8hr 28 26.6 12.4 5 57 OX 8hr 38.4 10.3 41 22 62

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results:

Toronto_60435_2019_Day187t0193.csv

The results below are what the student results should look like for the Toronto_60435_2019_Day187to193.csv dataset used in CHM 135 Experiment 1.

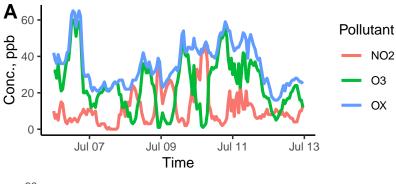


Figure 1: (A) Time series of pollutant concentration. There shouldn't be a linear regression on this plot, if students have done so please note it. (B) Correlation plot of O₃ vs. NO₂; the equation of the line is displayed in the lower left corner.

Conc. O ₃ , ppb B	60 - 50 - 40 - 30 - 20 - 10 -	y = 33.9	9-0.84	x, R ² = 0,29	84	• • •	•	
	o 	,	10	20		30	40	_
				Conc. N	NO_2 , ppb			

Pollutant sd median min mean max NO₂ 8 11.1 0 9.2 45 О3 14.1 23 1 60 24.5 OX35.6 11.9 34 16 65 NO₂_8hr 38 11.2 0 7.7 9 O3_8hr 24.6 12.5 22 4 57 OX 8hr 35.8 11.2 62 35 17

Table 1: Summary statistics for 1 hr and 8hr concentration of pollutants, all concentrations are in ppb.

Notes on results: