

### Lab 1

Student name 1, Student Name 2

(don't forget cover sheet – can be submitted in paper copy if emailing assignment. IF emailed, MUST be 1 single PDF)

#### Question 1:

The average total rain depth using the arithmetic mean method was XX mm, shown in Table 1. I would list any thing I did to gap fill or compensate for weird values etc. I would also include a conversion calculation of ml to mm for one of the Students.

**Table 1:** Comparison of methods for calculating the average precipitation for the City of Brandon in Sept 2016

Station	Arithmetic Mean	Polygon Method Weights (% area) Rain (mm)
Student Name 1	[rain values go here]	
Student Name 2		
Student Name 3		
Student Name 4		
Student Name 5		
Student Name 6		
Student Name 7		
Student Name 8		
Student Name 9		
Student Name 10		
Student Name 11		
Student Name 12		
Student Name 13		
Student Name 14		
Student Name 15		
Student Name 16		
Average	[arithmetic mean average here]	[polygon answer here]
Environment Canada	[answer here]	
BU Weather Station	[answer here]	

**Comment [PW1]:** [I would guess that Table 1 will look something like what I've shown here, which isn't pretty and would need to be made to look much better. Remember Table captions go at the top.

IF you've already made yours, and it doesn't look like this, don't fret. As long as it has all the info needed, it should be fine.

The average using the Thiessen polygon method was XX mm, shown in Table 1. The city was divided using this method as shown in Figure 1 below. The 16 student weights are shown in Table 1. The example calculation for "Student of your choice" rain is shown below.

[use equation editor to show the calculation for the individual student selected]

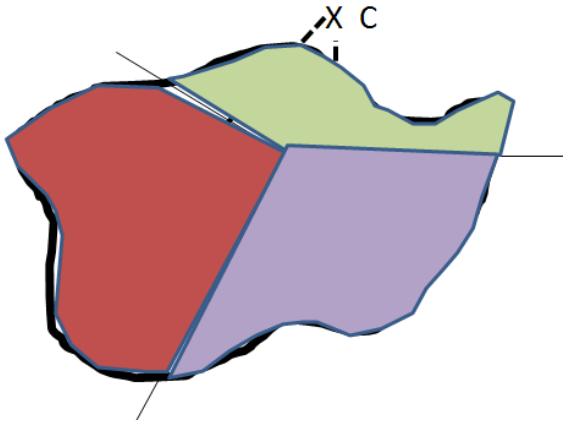


Figure 1: Thiessen polygons for the city of Brandon for the 16 students in 38:254. Weights for each students are listed in Table 1.

The Environment Canada (2016 – include reference) data were accessed on [date] and totalled xx mm, also shown in Table 1. The BU weather station for the same time period recorded xx mm (Table 1).

The results between the 4 methods were .... [write a paragraph about the differences/similarities and why you think they may have occurred]

**Comment [PW2]:** This is obviously from the notes, so you'll need to have one of your pieces (likely a photo, or screen capture from Google Earth if you went that route).

**Question 2:**

Write your answer and include a figure and/or a table that you reference (Figure 2 below) in your answer. Be sure to cite the date source(s).

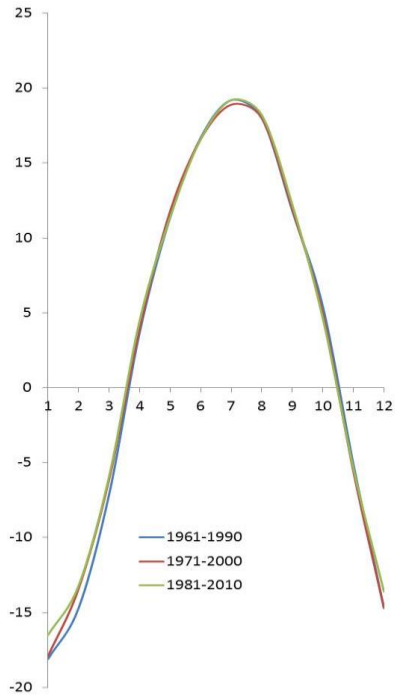


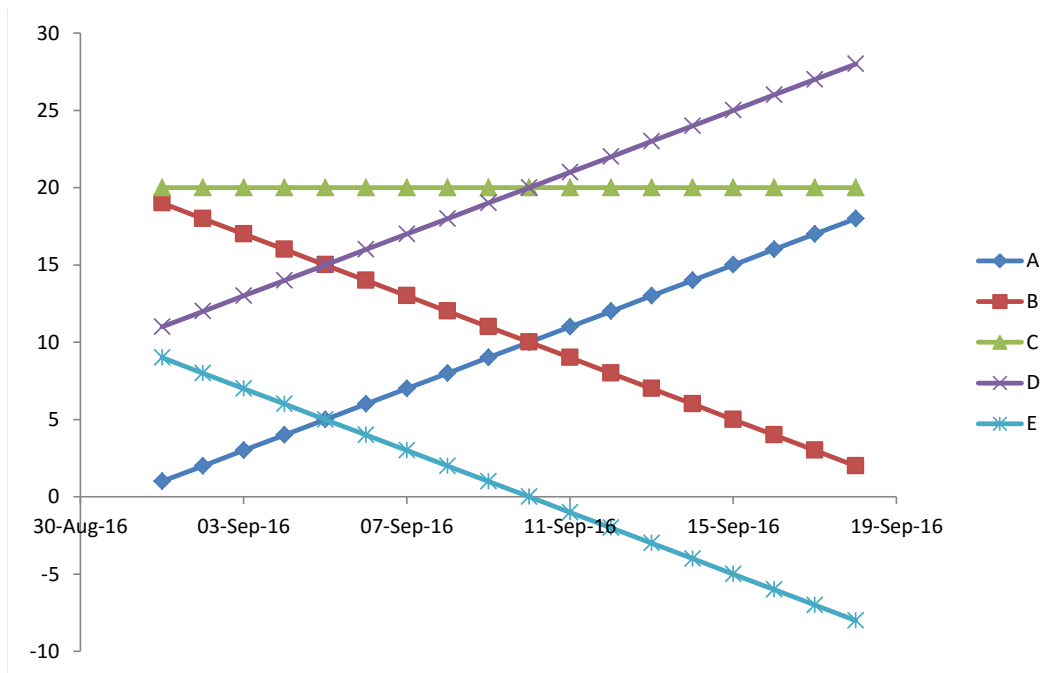
Figure 2: Some numbers I made up through time for some place or something. You better have a gooder caption than this garbage.

**Question 3:**

Write a paragraph summarizing the results of the time series Figure (probably Figure 3 by this point in the assignment) showing the mm/day for the three week study period, as well as to the Table which has the total evaporation losses listed (in mm). You should include one example calculation stating which bucket and which two measurements you are using. Your table with the totals is welcome to have the daily amounts used to make the time series graph.

Table 2: Total evaporation (mm) for the 5 buckets located in an office. See Figure 1 caption for details of the buckets.

Bucket	A	B	C	D	E
Total evap (mm)	3	3	5	4	1



**Comment [PW3]:** I completely fabricated these data. If yours don't look like this, that's a good thing. This also needs y-axis label.

Figure 3? Evaporation (mm/day) for the 5 buckets located in Dr. Whittington's office. Bucket A was filled with sand and water, B) filled with sand and mostly water, C) etc.

**Question 4:**

Answer to the first bullet will be a sentence or two, and reference the Table. Discuss any data that you deleted and why you deleted it (don't need a line by line, but generic comments (those that got heavier) should suffice.

Answer to the second bullet will be as above.

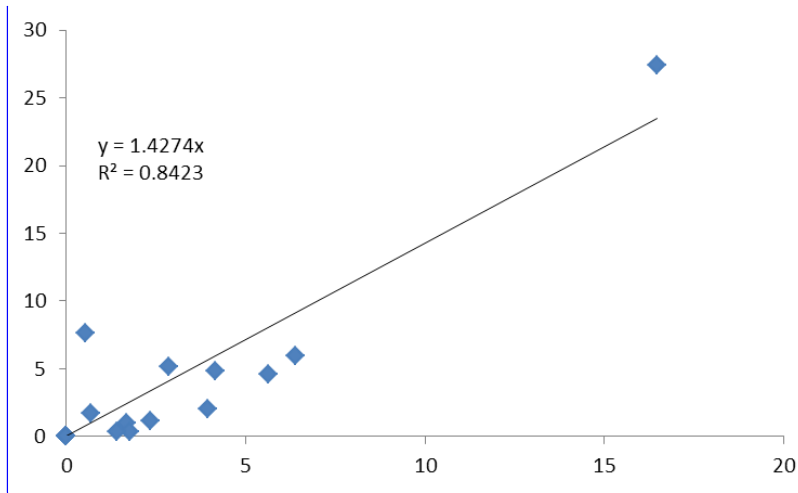
Answer to the third bullet will be one sentence with reference to Figure 4.

**Table 3:** Potential and Actual evapotranspiration (PET, AET) for site 1485M3 (Group 1) from Leclair.

	PET	AET
2011-06-19	0.539445	7.637698
2011-06-24	6.396197	5.976977
2011-06-26	3.950382	2.056247
2011-06-30	0	0
2011-07-03	0	0
2011-07-15	16.46092	27.38804
2011-07-16	1.674942	1.020534
2011-07-19	5.615123	4.615149
2011-07-23	0	0
2011-07-25	0	0
2011-07-26	2.86536	5.174701
2011-07-27	0	0
2011-07-29	1.760059	0.31288
2011-08-06	4.138973	4.862136
2011-08-07	1.393035	0.317486
2011-08-13	0	0
2011-08-14	0.684091	1.713848
2011-08-15	0	0
2011-08-16	2.333683	1.120266

**Comment [PW4]:** WAY too many decimal places. DO NOT submit a table with this many. 1 is enough (0.5, 7.6 for the first row).

Data are fabricated as well.



**Figure 4:** Plot of PET vs. AET for lysimeter 1485M3. The slope (1.42) of the regression line is the Priestley-Taylor alpha value.

**Comment [PW5]:** Also totally fabricated data.

**Comment [PW6]:** Labels anyone?