

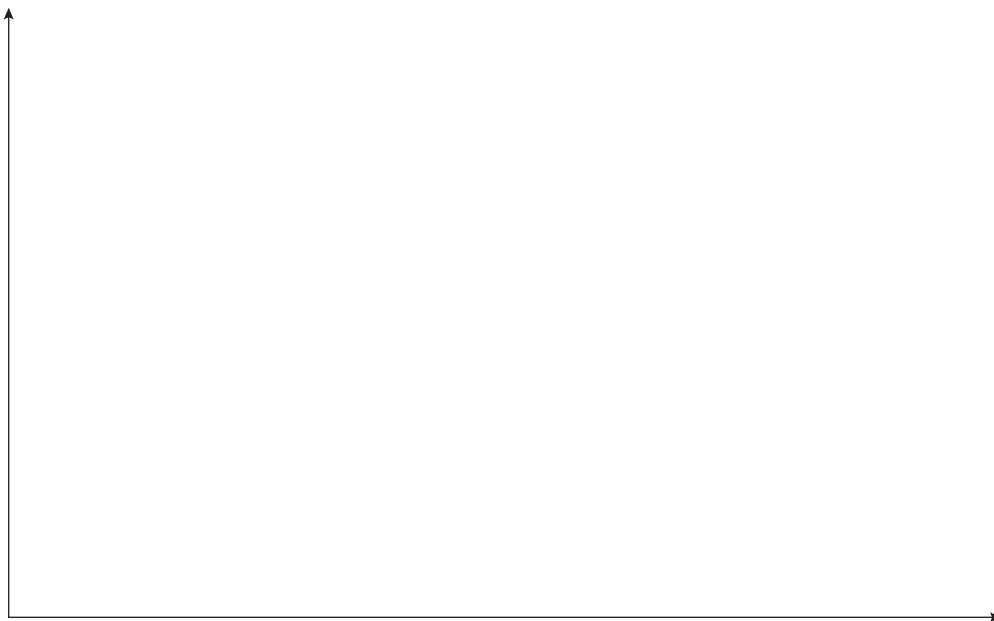
**Unit 6: Statistics Lesson 6.1****Game On!**

- 6 1. A frequency distribution for the age of Canada's population in July of 2012 is shown in the table.

Age	Number of People (millions)
0 – 9	3.78
10 – 19	4.04
20 – 29	4.89
30 – 39	4.71
40 – 49	5.07
50 – 59	5.13
60 – 69	3.70
70 – 79	2.11
80 – 89	1.17
90+	0.26

Source: Stats Canada

- a. Draw a histogram to represent this data. Be sure to include an appropriate title and label the axes.



- b. Use your histogram to describe how the age of Canadians is distributed.

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- c. Give reasons to explain the distribution described in b.

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2. Describe a scenario where you expect a set of data to have

- a. a large standard deviation

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- b. a small standard deviation

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- 6 3. The table shows daily maximum temperatures for four locations.

Daily Maximum Temperatures for August 2012				
Day	Ft. Chipewyan	Camrose	Pincher Creek	Medicine Hat
1	23.4	24.4	25.8	28.6
2	24.3	18.8	18.4	20.2
3	26.2	21.7	18.8	19.7
4	24.3	27.3	26.8	28.5
5	22.5	27.6	28.8	33.4
6	24.1	27.8	31.2	36.2
7	24.5	28.5	29.7	32.2
8	27.5	27.7	27.6	36.3
9	21.8	24.5	28.8	32.1
10	25.5	24.8	27.5	34.1
11	18.7	21.3	21.5	27.7
12	20.3	23.2	25.2	27.4
13	22.5	24.7	29.6	29.4
14	18.2	17.4	29.4	27.1
15	22.2	17.7	15.4	18.5
16	24.5	22.8	24.7	25.1
17	24.0	25.9	26.7	28.6
18	29.2	27.7	28.9	29.1
19	29.4	29.1	31.3	32.7
20	26.5	29.7	31.1	32.8
21	26.0	29.9	26.2	33.0
22	24.8	23.3	24.6	28.3
23	19.6	23.3	23.3	29.3
24	20.4	16.3	15.9	16.2
25	19.5	18.7	21.9	21.9
26	22.7	23.2	24.1	26.7
27	27.1	27.9	30.6	33.9
28	28.1	28.7	30.2	34.6
29	22.0	20.6	20.8	24.8
30	13.8	22.1	22.7	26.2
31	16.4	22.5	25.1	31.5

Source: <http://www.climate.weatheroffice.gc.ca>

- a. Based on the data, which location had the warmest month? Which had the coolest? Explain.

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- b. Which location had the most variability in maximum temperature? Which had the least? Explain.

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- c. Based on the mean and standard deviation, describe how the histogram of the four locations would compare (it is not necessary to create the histograms).

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2

4. The prize for winning a contest can be chosen from category A or category B. Prizes from category A have a mean of \$1000 and a standard deviation of \$50. Prizes from category B have a mean of \$1000 and a standard deviation of \$300. Describe an advantage of each prize category.

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You have completed *Lesson 6.1 Game On!*. Please return to the *Module* and continue your training with *Lesson 6.2*.