201-922-DW (Introduction to Statistical Methods)

Quiz 2 – Practise Exercises

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You will have a relatively short period of time to do this type of exercise on your quiz so you should do these exercises using your calculator

[**Data Set 1**]
Consider the following set of sample data:

12	3	7	8	9	-11	12	15	9	0
1	7	0	5	6	-5	2	5	-5	2
-3	12	0	4	14	-9	-6	11	1	-3
4	-5	1	-3	15	0	22	10	5	-8
5	5	5	-11	2	-5	7	12	4	6
16	2	6	10	6	-6	12	9	3	2

For the data set, using your calculator, compute:
a) $\sum(x_i)$
b) $\sum(x_i)^2$
c) the sample mean $\bar{x}$
d) the sample standard deviation s_x
e) the total variation SS(X)

[**Data Set 2**]
Consider the following set of sample data (notice that it is identical to Data Set 1 except for one data point – you should be able to change the data point without re-entering the entire data set in your calculator):

12	3	7	8	9	-11	12	15	9	0
1	7	0	5	6	-5	2	5	-5	2
-3	12	0	4	14	-9	-6	11	1	-3
4	-5	1	-3	**22**	0	22	10	5	-8
5	5	5	-11	2	-5	7	12	4	6
16	2	6	10	6	-6	12	9	3	2

For the data set, using your calculator, compute:
a) $\sum(x_i)$
b) $\sum(x_i)^2$
c) the sample mean $\bar{x}$
d) the sample standard deviation s_x
e) the total variation SS(X)

[**Data Set 3**]
Consider the following set of sample data given as a frequency table:

Value	Frequency
5	23
-3	6
4	10
3	12
2	9

For the data set, using your calculator, compute:
a) $\sum(x_i)$
b) $\sum(x_i)^2$
c) the sample mean $\bar{x}$
d) the sample standard deviation s_x
e) the total variation SS(X)

[**Answers**]

Data Set 1
a) 234
b) 3850
c) 3.9
d) 7.056
e) 2937.4

Data Set 2
a) 242
b) 4138
c) 4.033
d) 7.321
e) 3161.933

Data Set 3
a) 191
b) 933
c) 3.183
d) 2.347
e) 324.98