

Lecture 02B: univariate data analysis

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Warning: The hard deadline has passed. You can attempt it, but **you will not get credit for it.** You are welcome to try it as a learning exercise.

This quiz is based on the 4 video new video lectures:

- Univariate data analysis (2): Histograms
- Univariate data analysis (3): Basic terminology
- Univariate data analysis (4): Outliers, medians and MAD
- Univariate data analysis (5): The central limit theorem

Prior video content can be tested too.

You have 1 attempt for the quiz. Please read the instructions carefully. Please double check your answers before submitting.

Solutions will be released when the quiz closes, at 09:25am, Friday, 17 January 2015.

In accordance with the Coursera Honor Code, I (Kevin Dunn) certify that the answers here are my own work.

Question 1

What does the acronym CSV stand for (as used in this course)?

- Central standard value
- Comma-separated values
- Computerized system validation
- Confidence standard value

Question 2

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Which of the following are equivalent, or nearly equivalent, words for the concept of the **average**, as used in the videos this week.

Please check all that apply.

- measure of location
- location
- measure of central tendency
- dispersion
- mean

Question 3

What is the median absolute deviation of this sequence of data (use the definition as shown in the class videos)

70, 121, 218, 162, 65, 198, 67, 12, 19, 104, 115

Report your answer correct to one decimal place.

Question 4

Regarding the central limit theorem: *(please check all options that correctly apply)*

- the sampled data should be independent.
- it can apply to the median as well.
- the sampled data could have come from an [t-distribution](#).
- the sampled data used to calculate the average should be uniformly distributed.

Question 5

The standard deviation is variance squared

- False
- True

Question 6

If this class wrote a really easy test then we would expect to get a histogram, that when plotted in the usual way, would be ...

(check all options that correctly apply)

- normally distributed, because of the central limit theorem.
- uniformly distributed.
- skewed to the right.
- skewed to the left.

Question 7

You want to test a new paint for wood that your company is producing. If successful you can beat your competitor's product, which requires 2 layers of paint; your product only requires applying a single layer. You go to the hardware store, randomly buy a [2x4 wooden board](#) and bring it back to your lab.

You cut the board into 8 pieces and paint them. You send these 8 pieces to your quality group for analysis.

Select all options that correctly apply

- If you had painted the board first, and then cut it into 8 pieces, only then would you have 8 independent samples.
- You **will get** 8 independent measurements back from the quality control group.
- These **are not** 8 independent measurements that you get back from the quality control group.



If you send the samples to the quality control group on 8 different days, spread apart in time, and don't tell where they are from you, then you will have 8 independent measurements.

Question 8

Based on the [2006 Census of Population in Canada](#) if 65% of the population had responded they speak a language other than English, then

- the value of 65% is, practically speaking, a parameter.
- the value of 65% is a statistic.
- the census is biased towards English speakers.

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Save Answers

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