Homework 2

Instructions

1. Download the printable version of this assignment here. Print it out and record your answers directly in the space provided.
2. Write your **name** and **student number** on the top of the assignment.
3. For problems requiring additional written work, use the allotted work space and/or margins of the page.
4. Once you're done with a problem, reflect on how you well-equipped you felt answering that particular problem using the confidence level assessment.
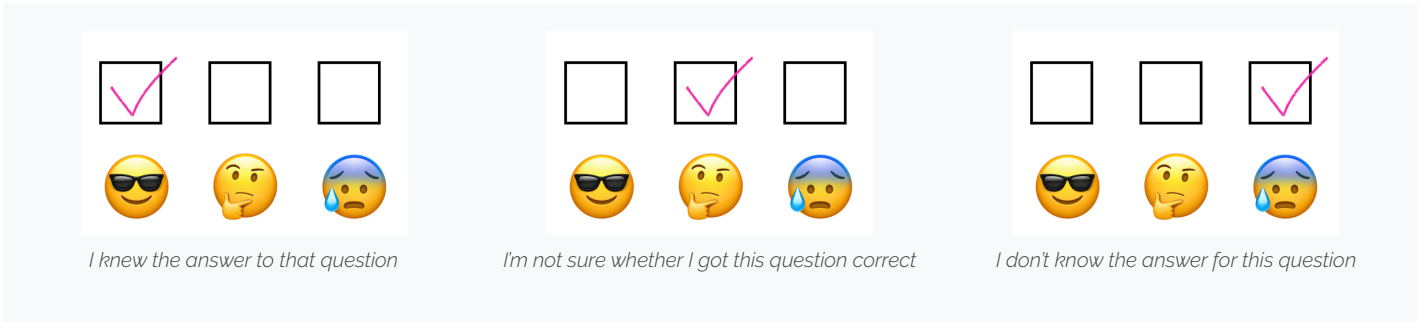

Figure 1: Confidence Level Assessment

5. Turn in your assignment in class on the due date.

Questions

Question 1

The following table provides chart data for the patients in a particular hospital ward:

Patient	Room	Physician	Condition	Length of stay
Carter, M.	202	Pollock	Critical	8 days
Levin, J.	203	McClare	Fair	4 days
Fox, J.	203	Lench	Good	5 days
Garcia, L.	205	Lench	Fair	7 days
Arluke, A.	201	Pollock	Serious	2 days
Parodi, A.	203	McClare	Good	9 days
Stark, D.	204	Lench	Fair	5 days
Chow, F.	202	Pollock	Critical	1 day
McDevitt, J.	204	Loftus	Serious	2 days

Name and calculate the most appropriate measure of central tendency and variability for each of the following variables. Feel free to provide a justification for your choice of measure as you see fit.

Room number

Measure of central tendency: _____

Measure of variability: _____

Physician

Measure of central tendency: _____

Measure of variability: _____

Patient condition

Measure of central tendency: _____
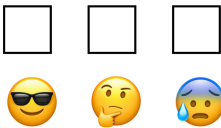
Measure of variability: _____

Length of hospital stay

Measure of central tendency: _____

Measure of variability: _____

Question 2

A researcher collected information on the number of text messages sent over an 8-hour period by a group of teenagers and a group of parents. The data collected are as follows:

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TEENAGERS		PARENTS	
Case #	Number of Texts	Case #	Number of Texts
1	4	1	0
2	27	2	6
3	10	3	5
4	8	4	2
5	5	5	9
6	4	6	10
7	11	7	7
8	7	8	9
9	9	9	6
10	5		

a. Find the mode, median, mean, range, and standard deviation for the number of texts sent by each group (teenagers and parents).

<u>TEENAGERS</u>

MEAN _____

MEDIAN _____

MODE _____

RANGE _____

STANDARD
DEVIATION _____

<u>PARENTS</u>

MEAN _____

MEDIAN _____

MODE _____

RANGE _____

STANDARD
DEVIATION _____

b. Which group – teenagers or parents – tended to send more texts? Support your answer using statistics you calculated for Part a. [Choose the most useful statistics for making your case].

<u>Answer:</u>

c. Which group – teenagers or parents – had the greatest diversity in the number of texts sent? Support your answer using statistics you calculated for Part a. [Choose the most useful statistics for making your case].

<u>Answer:</u>

d. What do your calculations indicate about the shape (symmetrical, negatively/left skewed, or positively/right skewed) of the distributions for the two groups?

<u>Answer:</u>

e. If you removed the most extreme case (the person with the most text messages) from each of the distributions, would your answers to Parts b and c change?

Answer:

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Question 3

A teacher asked a sample of 18 junior high school students how many hours of television they watched during the previous weekend. The results of the survey are summarized in the following frequency distribution.

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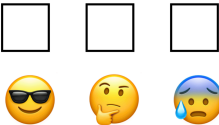
Hours of TV	Frequency
5	3
4	5
3	6
2	2
1	2
0	0

Calculate the following statistics to describe these data:

MEAN _____

MEDIAN _____

MODE _____

RANGE _____

STANDARD DEVIATION _____