Homework 2

Instructions

1. Download a 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 shown below.

Confidence-level assessment	Confident	Unsure	Don't Know
☐	☐	☐	
😎	🤔	😰	

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: _____

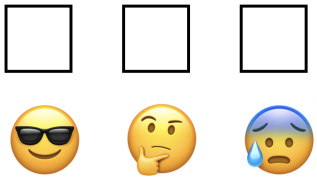
Length of hospital stay

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:



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

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

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

TEENAGERS	PARENTS
MEAN _____	MEAN _____
MEDIAN _____	MEDIAN _____
MODE _____	MODE _____
RANGE _____	RANGE _____
STANDARD DEVIATION _____	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].

Answer:

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].

Answer:

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

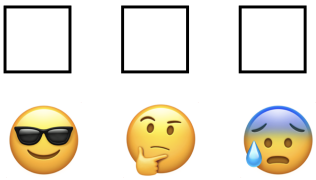
Answer:

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:

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.



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 _____