

Medical Statistics by example I

To answer to the request please used the data presented in the table below:

ID	Duration of hospital stay (days)	Age (years)	Sex 1=M, 2=F	Received antibiotic 1=yes, 2=no	Positive bacterial culture 1=yes, 2=no	Service 1=med, 2=surg
1	5	30	2	2	2	1
2	10	73	2	2	1	1
3	6	40	2	2	2	2
4	11	47	2	2	2	2
5	8	25	1	2	2	2
6	14	82	1	1	2	2
7	20	60	2	1	1	1
8	11	56	2	2	2	1
9	12	43	1	2	2	1
10	3	50	2	2	1	2
11	9	59	1	2	1	1
12	3	4	2	2	2	2
13	8	22	2	1	2	2
14	8	33	2	1	1	2
15	5	20	1	2	1	2
16	5	32	1	2	2	2
17	7	36	1	1	2	2
18	4	69	1	2	2	2
19	3	47	1	1	2	1
20	7	22	1	2	2	2
21	9	11	1	2	2	2
22	8	19	1	1	2	2
23	11	67	2	2	2	1
24	9	43	2	2	2	2
25	4	41	2	2	2	1

Requests:

- Q1. Calculate the mean, median, mode, variance, standard deviation, amplitude, and coefficient of variation for duration of hospital stay, age and sex.
- Q2. Which of the following statistic better characterize each of the investigated variables: mean, median or mode?
- Q3. Is duration of hospitalization different for those who received antibiotics compared to those who did not received antibiotics? Use 95% confidence interval to answer this question ($t_{critical} = 2.36$)
- Q4. Is duration of hospitalization different for those who received bacterial culture compared to those who did not received bacterial culture? ($t_{critical} = 2.57$)
- Q5. Is duration of hospitalization different for those who received a surgical service compared to those who received a medical service? ($t_{critical} = 2.23$)

Write the answers:

- In a word document Write the answers in a Word file using all formatting learned to practical activities.
- On a paper by handwriting.

Send a scan/picture of both handwritten answers or the Word (and the Excel files if you used the Excel file to do the calculations) as attached file to sbolboaca@umfcluj.ro no later than December 3, 2015 – 8.00 pm. Those e-mail received after the deadline will not be consider.

Put **your full name - group number – homework 1** as the subject of the e-mail.