MAT 3312 Homework 1/ Computing exercise Spring 21

Name: **Student 8** Date: **2/24/21**

Use SAS on demand to answer the following questions regarding descriptive statistics. You may place your results from SAS below. **Please copy and paste your SAS code to the end of your assignment.**

Import the Hospital dataset from the course data in SAS on demand. **Use the dataset to questions 1-8.**

Question 1. 2.1 from the book

Mean= 8.6

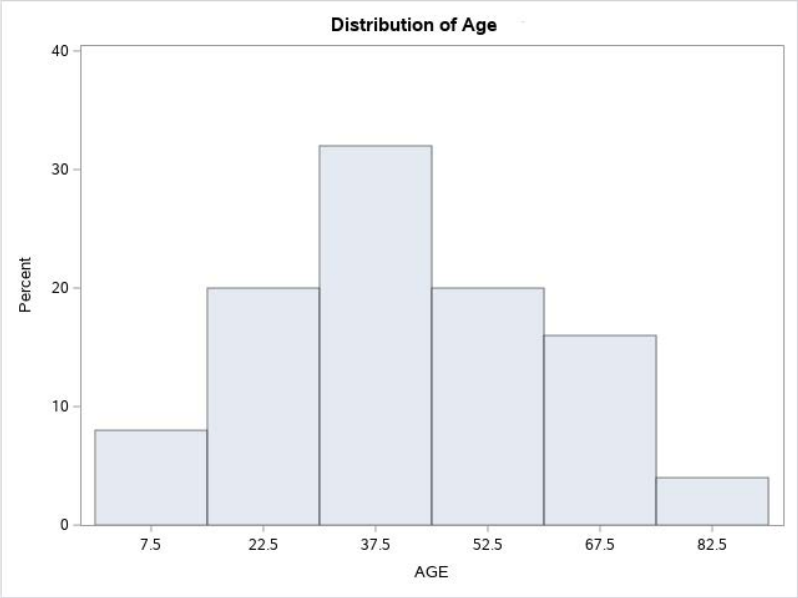
Median= 8

Question 2. 2.2 from the book

SD= 5.71548

Range= 27

Question 3. Graphically display the distribution of the variable age and add a title to your graphical display using SAS. Please include your initials in the title. Example "Distribution of Age FS"



Question 4. Describe the distribution of the variable age based on the graphical display you created in question 3.

The distribution of age is roughly symmetric.

Question 5. Find the five number summary of the variable first temp following admission?

Min= 96.8

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Q1= 98

Q2= 98.2

Q3= 98.6

Max= 99.5

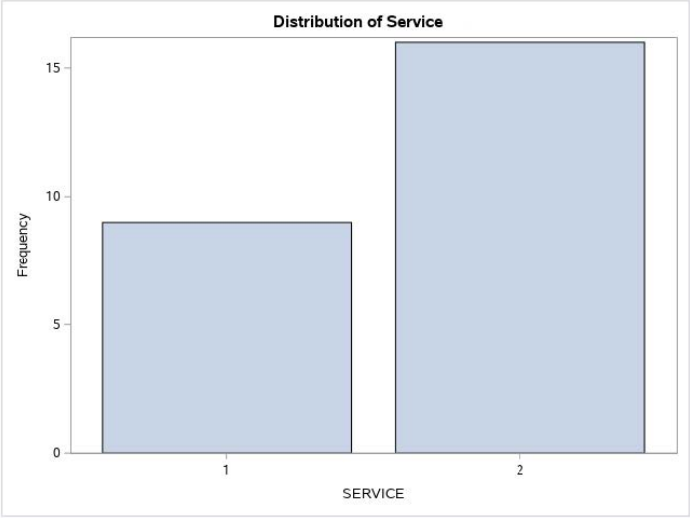
Question 6. What is the range, mode, and IRQ of the variable white blood cell count (WBC)?

Range= 11

Mode= 5

IQR= 6

Question 7. Graphically display the distribution of the variable service and add a title to your graphical display using SAS. Please include your initials in the title.



Question 8. Describe the distribution of the variable service based on the graphical display you created in question 7.

The distribution of service is left skewed.

Use the data containing baseline information of subjects entering a health study below to answer questions 9 and 10.

Sex	Age	Cholesterol level	Smoking status
F	50	178	Y
M	61	146	Y
M	72	208	N
M	55	147	Y
F	59	202	N
M	65	215	N
F	68	184	N
F	59	208	Y
F	63	206	N

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M	52	169	N

Question 9. Convert the raw data into a SAS data file. Print the data below.

Obs	sex	age	chol	ss
1	F	50	178	Y
2	M	61	146	Y
3	M	72	208	N
4	M	55	147	Y
5	F	59	202	N
6	M	65	215	N
7	F	68	184	N
8	F	59	208	Y
9	F	63	206	N
10	M	52	169	N

Question 10. What is the mean and standard deviation of the variable cholesterol? Is there no variability, small or a lot of variability for this variable?

Mean= 186.3

SD= 25.69501

A lot of variability

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```
/* Homework 1 */

LIBNAME datalib "~/my_shared_file_links/griffinfr0" access=readonly;
run;

proc contents data=datalib.hospital;
run;
proc print data=datalib.hospital;
run;
/*Question 1 and 2*/
proc univariate data=datalib.hospital;
var dur_stay;
run;

/*Question 3 */
proc univariate data=datalib.hospital;
var age;
histogram age/odstitle='Distribution of Age';
run;

/* Question 5 */
proc univariate data=datalib.hospital;
var TEMP;
run;

/* Question 6*/
proc univariate data=datalib.hospital;
var WBC;
run;
```

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```
/* Question 7 */

proc sgplot data=datalib.hospital;

vbar service;

title "Distribution of Service";

run;


/* Question 9 */

data health;

input sex$ age chol ss$;

cards;

F 50 178 Y
M 61 146 Y

M 72 208 N

M 55 147 Y

F 59 202 N

M 65 215 N

F 68 184 N

F 59 208 Y

F 63 206 N

M 52 169 N

;

run;

proc print data=health;

run;


/* Question 10 */

proc univariate data=health;

var chol;

histogram chol;

run;
```