Intro to measurements and statistics

Psychology

5) The following is a frequency distribution showing the amount of time it took a sample of employees to complete a certain job: (8pts) Number of Days (x)

Frequency(f)

F(x)

2

10

20

4

17

68

5

18

90

7

12

84

9

40

360

10

3

30

Total: 37

100

662

(a) Calculate the mean= 6. 62 median= 1. 0, mode 40, and range = 37.

(6) Lets assume you are conducting an experiment to determine the effect of a new drug on the incidence of epileptic seizures. You select 20 epileptics from the 150 epileptics being treated at a nearby hospital and administer the drug to them. You record the number of seizures in each of the 20 subjects for one month. The new drug is an example of a(n)= 20(1). 2pts

(7) Lets assume you are conducting an experiment to determine the effect of a new drug on the incidence of epileptic seizures. You select 20 epileptics from the 150 epileptics being treated at a nearby hospital and administer the drug to them. You record the number of seizures in each of the 20 subjects for one month. The 20 subjects constitute frequency. 2pts

(8) Lets assume you are conducting an experiment to determine the effect of a new drug on the incidence of epileptic seizures. You select 20 epileptics from the 150 epileptics being treated at a nearby hospital and administer the drug to them. You record the number of seizures in each of the 20 subjects for one month. The average (mean) number of seizures for the 20 subjects is called nominal categorical. 2pts

(12) Given the distribution of grouped scores shown in the following table (2pts)

N equals 139

(13) Given the distribution of grouped scores shown in the following table (2pts)

(17) Assume the following are scores in a 100-point achievement test:

(12pts)

a.

What is the range of the distribution? 58

b.

Since there is no definitive rule for determining how many class intervals to divide data into, one generally plays with the data or is told how many intervals to use. If you were told to group the above data into approximately 12 intervals of equal width, how wide would the class intervals be.

0 – 7 … 88 – 95

Using the value just calculated for I = 8. 0 what would be the lower apparent limit of the lowest class interval? -0. 5

c.

Using 12 intervals construct a table that shows the frequency distribution of grouped scores, the corresponding cumulative frequency distribution, and the corresponding cumulative percentage distribution.

Class Intervals

Frequency

Cumulative Percentage

0 – 7

0

3. 5

8 – 15

0

15. 5

16 – 23

0

23. 5

24 – 31

0

31. 5

32 – 39

2

39. 5

40 – 47

6

47. 5

48 – 55

4

55. 5

56 – 63

10

63. 5

64 – 71

4

71. 5

72 – 79

4

79. 5

80 – 87

7

87. 5

88 - 95

9

95. 5

(20) What are the critical values of t for each of the following values of N and alpha using a non-directional hypothesis? (1pt each)

N

✔

a.

12

0. 05

b.

20

0. 01

c.

2

0. 05

d.

5

0. 02

e.

19

0. 01

Answer: c

Now using a directional hypothesis?

N

✔

f.

13

0. 025

g.

17

0. 005

h.

8

0. 05

i.

15

0. 01

j.

10

0. 05

Answer: g.