

Set 2 practice with answers

1. Below are the scores for 100 participants who completed a measure of authoritarianism, where scores ranged from a low of 40 to a high of 120.

interval	f	C%
110-120	3	100
100-109	7	97
90-99	10	90
80-89	15	80
70-79	25	65
60-69	20	40
50-59	15	20
40-49	5	5
	n= 100	

- a. Anyone at the 25th percentile or lower is classified as “low authoritarian.” What score corresponds to the 25th percentile?
- b. Anyone at the 75th percentile or higher is classified as “high authoritarian.” What score corresponds to the 75th percentile?
- c. What is the percentile rank of someone who scores 54 on the scale?
- d. What is the percentile rank of someone who scores 103 on the scale?

Answers to question 1

- a. **If PR = 25, x = 62**
- b. **If PR = 75, x = 86.2**
- c. **If x = 54, PR = 11.75**
- d. **If x = 103, PR = 92.45**

2. 44, 45, 44, 44, 45, 46, 50, 48, 44, 41, 33, 44,

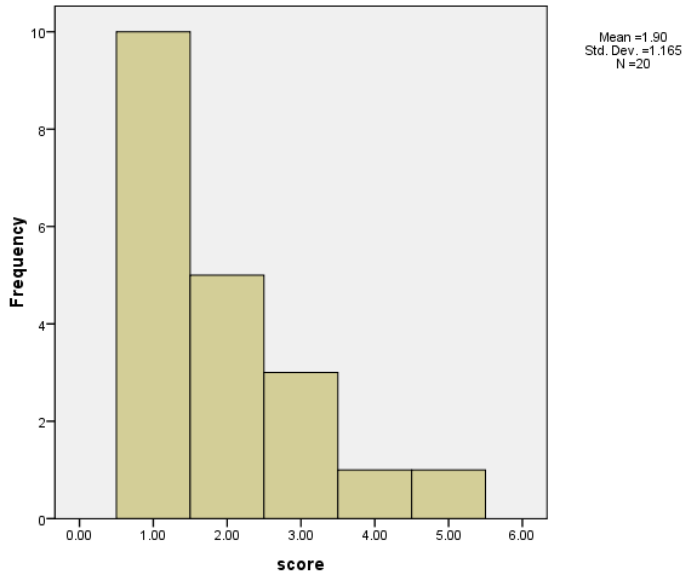
With the above sample distribution of exam scores, compute the following:

- a. mean
- b. median
- c. mode
- d. if we added a score of 50 to this distribution, what would the new mean be?
- e. If we multiplied every score in this new distribution (based on 13 scores) by 2, what would the new mean be?

answers to question 2

- a. 44
- b. 44
- c. 44
- d. 44.46
- e. 88.92

3. Below is a graph depicting scores on a scale ranging from 1-5.



- a. what type of graph is depicted here?
- b. describe the shape of the distribution

Answers to question 3

a. histogram

b. The distribution has a positive skew. It is unimodal, not symmetrical, and therefore not normal.

4. Below is a distribution of scores (population).

score	f
7	3
6	4
5	6
4	4
3	2
2	1
1	1

calculate the following

- mean
- median
- mode
- cumulative frequency column
- proportion column

Answers to question 4

a. 4.76

b. 5

c. 5 (6)

d and e below

score	f	C f	P		
7	3	21	.14		
6	4	18	.19		
5	6	14	.29		
4	4	8	.19		
3	2	4	.10		
2	1	2	.05		
1	1	1	.05		