



# Biostatistics

Archive

Lecture 9

Corrected By :

Obada Alkhaldeh  
Ibrahim AlAwaje

Designed By :

Raneem Dmour



1. Assume that the test scores of 600 students are normally distributed with a mean of 76 and a standard deviation of 8

The number of students scoring between 70 and 82 Select one:

- a. 55. b. 455. C.244. d. 328. e. can't be calculated

Ans: D.328

2. 1000 students in Jordanian university Took a standardized test that is normally distributed and has a mean of 350 and a variance of 225, Here are the scores for 3 students Sara scored 350, Murad scored 320 and Khalaf 390: What proportion of the students would be expected to score below Murad?

Select one

- a. 0.0227. b. 0.0690. C.0.9350. d.0.9773. e 0.0440

Ans: A. 0.0227

3. "1000" students in Jordanian university took a standardized test that is normally distributed and has a mean of 350 and variance of 225 here are the scores for 3 students: Sara scored 350 Murad scored 320 and Khalaf 390 in this sample how many students would be expected to score above Khalaf? Select one:

- a. 12. b. 4. C.8. d. 60. e. 100

Ans:B. 4

4. The proportion of area under normal curve between z equal to - 1.16 and the mean is? Select one

- a. 11.79%. b.61.79%. c. 37.7% d.50%. e. Can't be calculated

Ans:C. 37.7%

5. fi the Sample size equal to 256 teachers, and the Mean Systolic blood pressure equal to 120 mmHg. and the Standard deviation equal to 6. So, the percentile ranks of a teacher whose blood pressure equal to 126 mmHg is? Select one:

- a. 20th. b. 65th. c.3rd. d. 84th. e. Can't be calculated

Ans:D.84th

6. The Z-score corresponding to the 89 the percentile is? Select one:

- a. 2.44. b. 1.05. C. 0.88. d. 1.23. e. 0.48

Ans:D.1.23

7. One is not correct at statement, regarding the normal distribution curve it is? Select one

- a. Determined by Standard deviation and mean  
b. Standard deviation and mode  
c. Bell shape  
d. Used for calculation of confidence interval  
e. Used for justification of confidence interval

Ans:B.Standard deviation and mode

8. Assume that the test scores of 500 students are normally distributed with a mean of 80 and a standard deviation of 4

The number of students scoring between 86 and 82 ? Select one

- a. 155. b. 146. C. 121. d. 228. e. cant be calculated

Ans:C.121

9. Area under the curve in normal distribution curve by more than 3 S.D on both sides is?

Select one:

- a. 33% b. 68%. c. 5% d. 95% e. 1%

Ans:E.1%

10. in a normal distribution with mean 40 and variance 16 at what percentile rank does a score of 50 falls? Select one:

- a. 99.38%. b. 82.57%. C. 49.18% d. 12.44% e. 50.85%

Ans:A. 99.38%

11. The percent of area of normal curve between  $z=-0.97$  and the mean is? Select one:

- a. 11.79 % . b. 61.79 % c. 33.40 % d. 50.33 % . e. Can't be calculated

Ans:C. 33.4%

12. Given that a distribution has a mean of 32 and a standard deviation of 4 what score will be associated with a standard

Z score of 2? Select one

- a.26. b. 32. c. 38. d. 40. e. 42

Ans:D. 40

13. Which is incorrect statement regarding the standard normal distribution?

Select one:

- a. Mean equal to zero  
b. Standard deviation equal to 1  
C. Standard normal distribution may be not symmetrical  
d. For a distribution to be normal, a certain proportion of the entire area must occur between specific values of the standard deviation  
e. Standard normal distribution have a graph and equation

Ans:C. Standard normal distribution may be not symmetrical

14. If the birth weight of each of the 100 babies born in a hospital during April was found to be 2.25 kg then the standard deviation of this sample will be:

- a 2.25  
b.0  
c.1  
d.025  
e.0025

Ans:B.0

15. In a group of 100 women the mean weight of is 60 kg. The standard deviation is 1.25 kg Which one of the following is true? Select one

- a. 95% of all women weight between 55 and 65 kg
- b. 95% of all women weight between 57.5 and 62.5 kg
- c. 99% of all women weight between 55 and 65 kg
- d. 99% of all women weight between 57.5 and 62.5 kg
- e. 68% of all women weight between 55 and 65 kg

**Ans: B. 95% of all women weight between 57.5 and 62.5 kg**

16. Covering 95% of the population under the normal distribution curve we have to? Select one:

- a. Move one S. E above and one SE below mean
- b. Move 1.645 SE. above and below the mean:
- C. Move 1.96 S.E above and below the mean
- d. Move 2 58 SE above and below the mean
- e. Move 3 S.E above and 3 S. E below mean

**Ans: C. Move 1.96 S.E above and below the mean**

17. In the normal distribution curve, the mean  $\pm$  3 standard deviations cover?

Select one:

- a. 60%. b. 65%. c. 95%. d. 99%. e. 5%

**Ans: D. 99%**

18. Which is CORRECT statement regarding the symmetrical distribution?

Select one:

- a Standard deviation equal to 1
- b Mean equal to zero
- c. Symmetrical distribution have a graph and equation
- d. All Symmetrical Distribution's must be standard normal distributions
- e A distribution is symmetrical if the mean, median and mode are at the same location

**Ans: E. A distribution is symmetrical if the mean, median and mode are at the same location**

19. The state or quality of fatness or peakedness of a distribution called?

Select one:

- a Multi-modal.
- B. Kurtosis.
- C. Symmetrical.
- D. Positively Skewed.
- e. Negatively Skewed

**Ans: B. Kurtosis.**

20. Gaussian distribution are characterized by all of the following EXCEPT? Select one:

- a. It is bell shaped, continuous curve
- b. The traits never touch the base
- c. The mean mode and the median values are equal to one
- d. It is described by two parameters the mean and standard deviations
- e. About 68% of the probability under the curve falls within one standard deviation around the mean

**Ans: c. The mean mode and the median values are equal to one**

21. The mean body weight in a group of 100 adult males is 170 lb with a S.D 1.5 lb one statement is correct?

Select one:

- a. 95% of population weights fall between 167-173 lb
- b. 95% of population weights fall between 168.5-171.5 lb
- c. 68% of population weights fall between 167-173 lb
- d. None of population weight more than 175 lb
- e. None of population weight is less than 165 lb

**Ans: a. 95% of population weights fall between 167-173 lb**

22. What percent of the area of a distribution lies between the first and third Quartiles? Select one:

- a. 25.
- b. 50.
- c. 68.
- d. 75
- e. The question can't be answered without knowledge of the specific distribution

**Ans: B. 50**

23. Which is INCORRECT statement about the symmetrical distribution?

Select one

- a. if a distribution is asymmetrical it is considered to be skewed
- b. The tail of a distribution indicates the type of skewness
- c. The symmetry of variation indicated by skewness
- d. If the tail goes to the left the distribution is skewed to the right and is positively skewed
- e. A symmetrical distribution has no skewness

**Ans: d. If the tail goes to the left the distribution is skewed to the right and is positively skewed**

24. distribution is relatively flat in the middle and has thin tail: it has?

Select one

- a. Negative skewness.
- b. Little Kurtosis
- c. Positive skewness.
- d. Multi-modal.
- e. Large Kurtosis

**Ans: B. Little Kurtosis**

25. Gaussian distribution are characterized by all of the following EXCEPT? Select one:

- a. it is bell shaped, continuous curve
- b. The tail never touch the base
- c. The mean equal one and the standard deviation equal zero
- d. it is described by two parameters the mean and standard deviations
- e. About 95% of the probability under the curve fall within two standard deviation around the mean

Ans:c. The mean equal one and the standard deviation equal zero

26. Given a distribution with a mean of 32 and a S.D of 4. The score that will be associated with a standard scores of 1.5:

- a. 42
- b. 40
- c. 26
- d. 32
- e. 38

e. 38

يقول شمس الدين ابن قيم الجوزية - رحمه الله - في كتابه "مفتاح دار السعادة":

مَنْ أَحْسَنَ عِبَادَةَ اللَّهِ فِي شِبَابِهِ، أَعْطَاهُ اللَّهُ الْحِكْمَةَ  
عِنْدَ كِبَرِ بَيْنِهِ، تَأَمَّلْ قَوْلَهُ تَعَالَى  
{وَلَمَّا بَلَغَ أَشُدَّهُ وَاسْتَوَىٰ آتَيْنَاهُ حُكْمًا وَعِلْمًا} وَكَذَلِكَ  
نَجْزِي الْمُحْسِنِينَ{..

(فاقصد الله في دراستك وفي عملك وفي كل  
أمرك.. واجعل مذهبك كما قال الله تعالى:  
{قُلْ إِنْ صَلَاتِي وَنُسُكِي وَمَحْيَايَ وَمَمَاتِي لِلَّهِ رَبِّ  
الْعَالَمِينَ \* لَا شَرِيكَ لَهُ وَبِذَلِكَ أُمِرْتُ وَأَنَا أَوَّلُ  
الْمُسْلِمِينَ}{...)