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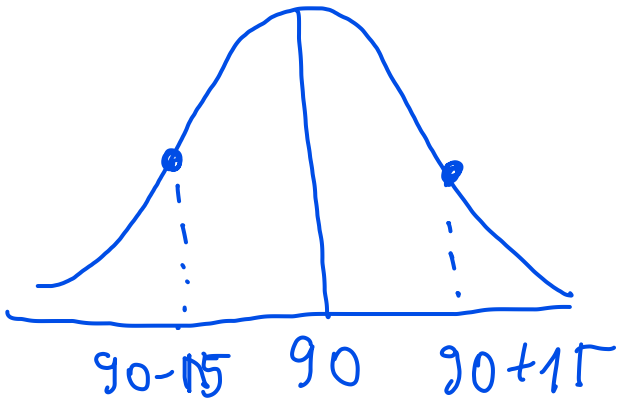
Quiz Chapter 13

Your answers: shade in the cell that best completes the statement or answers the question

	1	2	3	4	5
a					
b					
c					
d					
e					

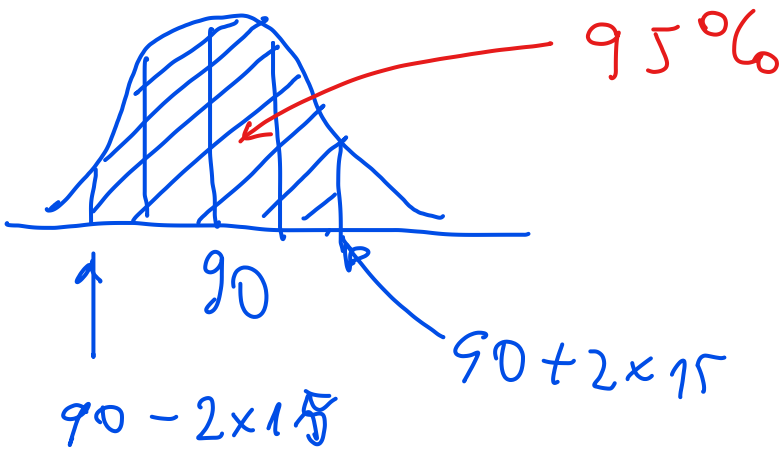


Scores of adults aged 60 to 64 on a common IQ test are approximately Normally distributed with mean 90 and standard deviation 15.

68 - 95 - 99.7

1. What range of IQ scores contains the central 95% of the population of adults aged 60 to 64?

a. 75 to 105
b. 60 to 120
c. 30 to 150
d. 45 to 135



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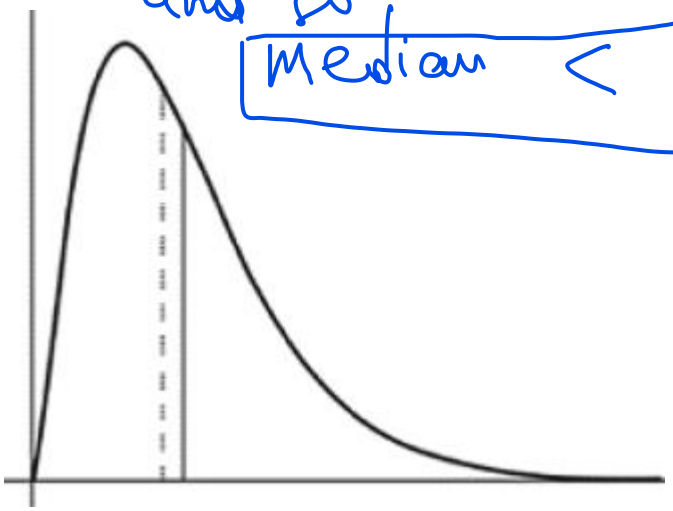
2. The third quartile is also called the
   a. 3rd percentile.
   b. 25th percentile.
   c. 50th percentile.
   d. 75th percentile.

3. Two measures of center are marked on the density curve below.

skewed to the right
and so
median < mean

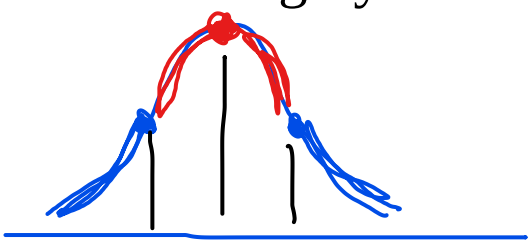


   a. The median is at the solid line and the mean is at the dashed line.
   b. The median is at the dashed line and the mean is at the solid line.
   c. The mode is at the dashed line and the median is at the solid line.
   d. The mode is at the solid line and the median is at the

dashed line.

4. A Normal distribution always
   a. is skewed to the right.
   b. is skewed to the left.
   c. is symmetric.
   d. has a mean of 0.
   e. has more than one peak.

5. The risk of an investment is measured by the variability of the changes in its value over a fixed period, such as a year. More variation from year to year means more risk. The government's Securities and Exchange Commission wants to require mutual funds to tell investors how risky they are. A news article (*New York Times*, April 2, 1995) says that some people think that "the proposed risk descriptions, especially one that goes by the daunting name standard deviation" are hard to understand. Explain to a friend what the standard deviation means, using the fact that the changes in a mutual fund's value over many years have a roughly Normal distribution.



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a. The standard deviation is the distance between the first and third quartiles, so it spans half the yearly changes in the fund's value.

b. The standard deviation is the largest change we ever expect to see in a year.

c. The yearly change in the fund's value will be greater than the standard deviation half the time and less than the standard deviation half the time.

d. Start with the average (mean) change in the fund's value over many years; the actual change will be within one standard deviation of that average in about 68% of all years.

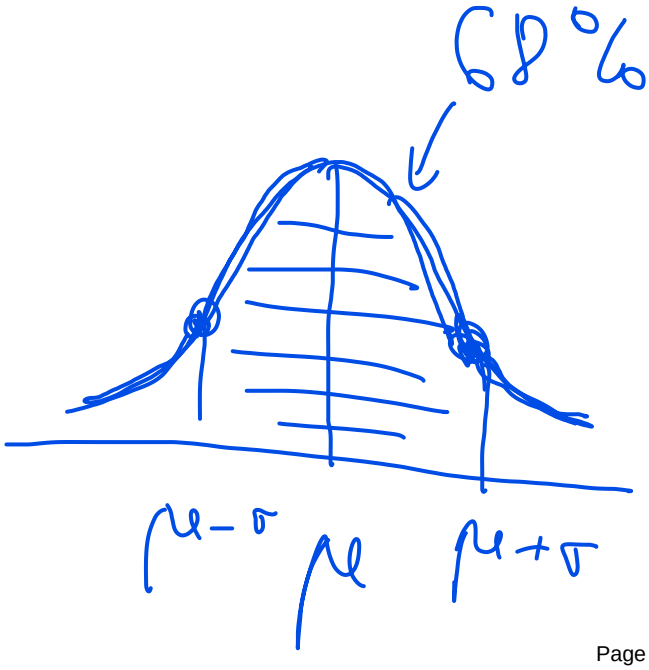
e. Start with the average (mean) change in the fund's value over many years; the actual change will be within one standard deviation of that average in about 95% of all years.

mean = μ

st.dev = σ

Recall:

68-95-99.7



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Answer Key

1. b

2. d

3. b

4. c

5. d