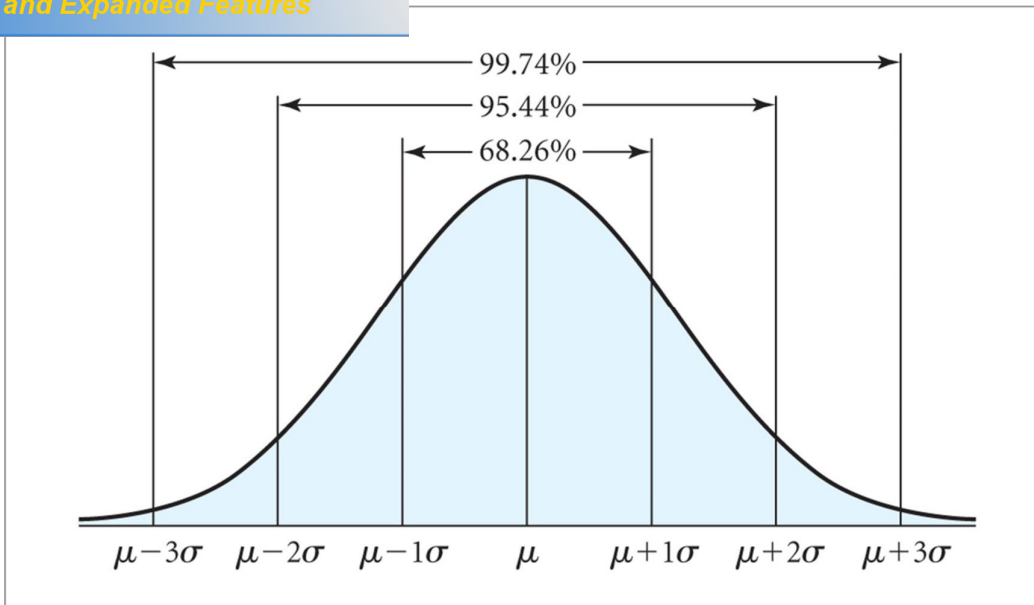


Normal distribution.



1. If x is a variable follows the normal distribution then approximately 68% of the x values fall within plus and minus one standard deviation of the mean.
2. If x is a variable follows the normal distribution then approximately 95% of the x values fall within plus and minus two standard deviation of the mean.
3. If x is a variable follows the normal distribution then approximately 100% of the x values fall within plus and minus three standard deviation of the mean.

Data:

15 16 17 18 19 25

Compute the mean and the median and describe the distribution.

Answer: mean=16 median=15.5 the distribution is positively skewed

(b) We have the following data:

1 12 13 14 15 16 17 18 19 20

Compute the mean and the median and describe the distribution.

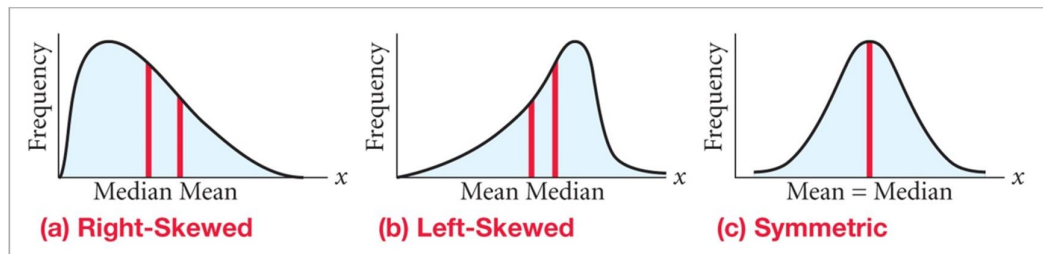
Answer: mean=15 median=15.5 the distribution is negatively skewed

(c) We have the following data:

11 12 13 14 15 16 17 18 19 20

Compute the mean and the median and describe the distribution.

Answer: mean=15.5 median=15.5 the distribution is normal



(a) The mean > median: the distribution is right-Skewed = positively skewed.

(b) The mean < median: the distribution is left-Skewed = negatively skewed.

(c) The mean = median: the distribution is symmetric = normal.