

Given the linear correlation coefficient and the sample size, determine the critical values of r and use your finding to state whether or not the given correlation coefficient represents a significant linear correlation. Use a significance level of 0.05.

3) $r = 0.887$, $n = 25$

- A) Critical values: $r = \pm 0.487$, significant linear correlation
- B) Critical values: $r = \pm 0.396$, significant linear correlation
- C) Critical values: $r = \pm 0.487$, no significant linear correlation
- D) Critical values: $r = \pm 0.396$, no significant linear correlation

Solve the problem.

4) How many ways can an IRS auditor select 4 of 13 tax returns for an audit?

- A) 28,561
- B) 715
- C) 24
- D) 17,160

Use the margin of error, confidence level, and standard deviation to find the minimum sample size required to estimate an unknown population mean.

5) Margin of error: \$126, confidence level: 95%, $\sigma = \$510$

- A) 63
- B) 2
- C) 5
- D) 55

Find the indicated probability.

6) The table below describes the smoking habits of a group of asthma sufferers.

	Nonsmoker	Occasional smoker	Regular smoker	Heavy smoker	Total
Men	384	33	64	49	530
Women	349	44	72	38	503
Total	733	77	136	87	1033

If one of the 1033 people is randomly selected, find the probability that the person is a man given that they are a heavy smoker.

- A) 0.092
- B) 0.004
- C) 0.597
- D) 0.563

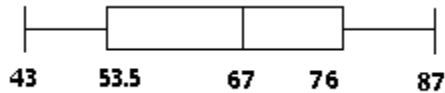
Construct a boxplot for the given data. Include values of the 5-number summary in all boxplots.

7) Construct a boxplot for the data given in the stem-and-leaf plot.

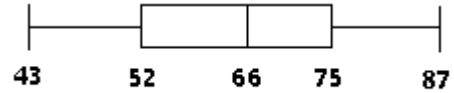
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4 | 3 6 9
5 | 1 2 2 5 8
6 | 5 6 6 6 7 7 7 9
7 | 1 3 5 7 9
8 | 3 5 6 7
    
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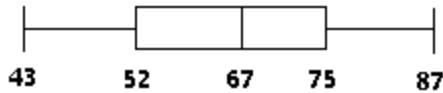
A)



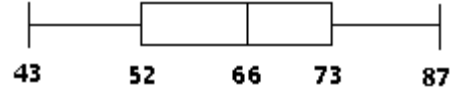
B)



C)



D)



Identify which of these types of sampling is used: random, stratified, systematic, cluster, convenience.

8) A tax auditor selects every 1000th income tax return that is received.

- A) Stratified
- B) Convenience
- C) Systematic
- D) Cluster
- E) Random

Find the mean for the given sample data.

9) Frank's Furniture employees earned the following amounts last week:

\$375.51 \$339.04 \$180.97 \$421.73 \$516.56
 \$370.13 \$466.92 \$165.25 \$457.10

What was the mean amount earned by an employee last week? Round your answer to the nearest cent.

- A) \$365.91
- B) \$470.46
- C) \$359.25
- D) \$411.65

Construct the relative frequency distribution that corresponds to the given frequency distribution.

10)

Scores	Frequency
91-100	3
81-90	5
71-80	12
61-70	5
<61	2

A)

Scores	Relative Frequency
91-100	11.1%
81-90	20.1%
71-80	37.3%
61-70	15.2%
<61	14.9%

B)

Scores	Relative Frequency
91-100	0.22%
81-90	0.07%
71-80	0.63%
61-70	0.07%
<61	0.00%

C)

Scores	Relative Frequency
91-100	15.5%
81-90	22.1%
71-80	31.3%
61-70	16.2%
<61	14.9%

D)

Scores	Relative Frequency
91-100	11.11%
81-90	18.52%
71-80	44.44%
61-70	18.52%
<61	7.41%

Answer Key

Testname: FALL06STATSFINALMC-B

- 1) D
- 2) B
- 3) B
- 4) B
- 5) A
- 6) D
- 7) A
- 8) C
- 9) A
- 10) D