

1. (1 point) (a) A committee on community relations in a college town plans to survey local businesses about the importance of students as customers. From telephone book listings, the committee chooses 251 businesses at random. Of these, 56 return the questionnaire mailed by the committee. The population for this study is

- A. the 56 businesses that returned the questionnaire.
- B. the 251 businesses chosen.
- C. all businesses in the college town.
- D. None of the above.

(b) A sample of households in a community is selected at random from the telephone directory. In this community, 6

- A. nonresponse.
- B. false responses.
- C. undercoverage.
- D. None of the above.

(c) An opinion poll contacts 1075 adults and asks them, "Which political party do you think has better ideas for leading the country in the 21st century?" In all, 675 of the 1075 say, "The Democrats." The sample in this setting is

- A. the 1075 people interviewed.
- B. the 675 people who chose the Democrats.
- C. all 235 million adults in the United States.
- D. None of the above.

Answer(s) submitted:

- C
- C
- A

(correct)

2. (1 point) Animals and people that take in more energy than they expend will get fatter. Here are data on 12 rhesus monkeys: 6 lean monkeys (4% to 9% body fat) and 6 obese monkeys (13% to 14% body fat). The data report the energy expended in 24 hours (kilojoules per minute) and the lean body mass (kilograms, leaving out fat) for each monkey.

Lean	Obese
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Body Mass	Energy	Body Mass	Energy
6.1	1.23	7.8	0.99
7.7	1.03	9.4	1.37
9.4	1.4	10.9	1.15
10.1	1.74	12	1.47
9.5	1.07	11.9	1.28
9.3	1.21	10.2	1.36

(a) What is the mean lean body mass of the lean monkeys?

ANSWER $\bar{x}$ = ___ kilograms.

(b) What is the mean lean body mass of the obese monkeys?

ANSWER $\bar{x}$ = ___ kilograms.

Answer(s) submitted:

- 8.6833333
- 10.3666666

(correct)

3. (1 point)

Calculate the mode, mean, and median of the following data:

19, 19, 23, 21, 17, 19, 24, 15

Mode = ____

Mean = ____

Median = ____

Answer(s) submitted:

- 19
- 19.625
- 19

(correct)

4. (1 point) Find the five-number summary for the following 10 values:

28, 24, 29, 24, 44, 40, 35, 24, 42, 33

Find the minimum: ____

Find Q_1 : ____

Find the median: ____

Find Q_3 : ____

Find the maximum: ____

Answer(s) submitted:

- 24
- 24
- 31
- 40
- 44

(correct)

5. (1 point)

Consider the following data set. Give the five number summary listing values in numerical order:

____, ____, ____, ____, ____.

Data set: 80, 65, 36, 27, 97, 62, 63, 91, 73, 93, 33

Answer(s) submitted:

- 27
- 36
- 65
- 91
- 97

(correct)

6. (1 point)

Your school basketball team posted the following (sorted) scores in 13 recent games:

52 53 56 56 56 56 56 63 64 65 67 68 68

The average game score is ____ while the median score is _____. The modal score is _____.

Express answers that are not integers to two decimal places.

Answer(s) submitted:

- 60
- 56
- 56

(correct)

7. (1 point)

The following data contains days when road rage occurred according to a study. The goal of the study is to determine when road rage occurs most often.

M, F, M, F, W, Tu, Th, W, F, F, Th, Sa, Su, Su, F, W, Tu, F, F, F, W, Th, Th, F, F, F, Sa, Th, Tu, M, F, F, F, W, F, M, Th, F, Tu, F, Sa, F, F, W, Su, F, Su

Find the mode of the above data.

Mode = _____

Answer(s) submitted:

- F

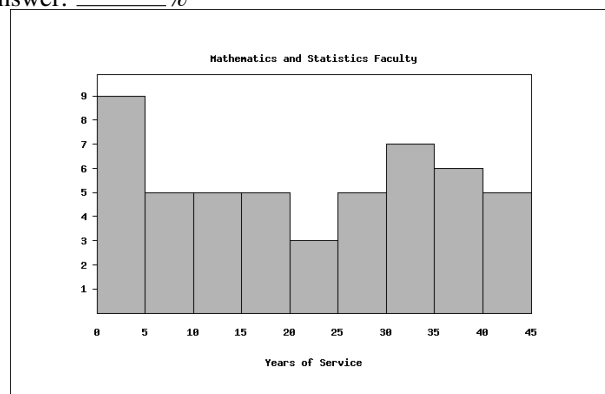
(correct)

8. (1 point)

The histogram below gives the length of service of members of the Department of Mathematics and Statistics at a particular university. The classes, in years of service, are 0–4.9, 5–9.9, etc., and the vertical axis represents the number of faculty.

What percent of the department faculty have less than 15 years of service?

Answer: _____%



Answer(s) submitted:

- 38

(correct)

9. (1 point)

The histogram below gives the length of service of members of the Department of Biology at a particular university. The classes, in years of service, are 0–4.9, 5–9.9, etc., and the vertical axis represents the number of faculty.

(a) What percent of the department faculty have less than 5 years of service?

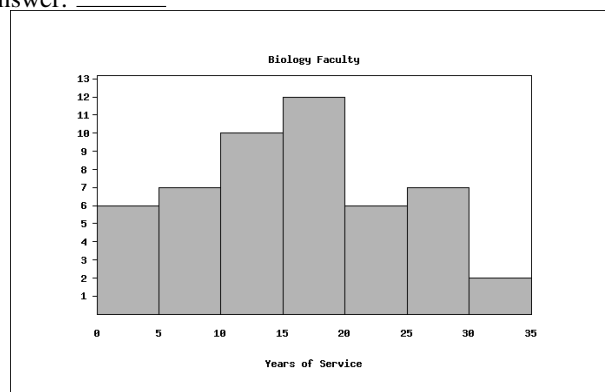
Answer: _____%

(b) If a member of the department is chosen at random to serve on a university committee, what is the probability (in decimal form) that the chosen representative will have between 30 and 35 years of service?

Answer: _____

(c) What is the probability the representative above will have less than 5 years of service given that the person has less than 15 years of service?

Answer: _____



Answer(s) submitted:

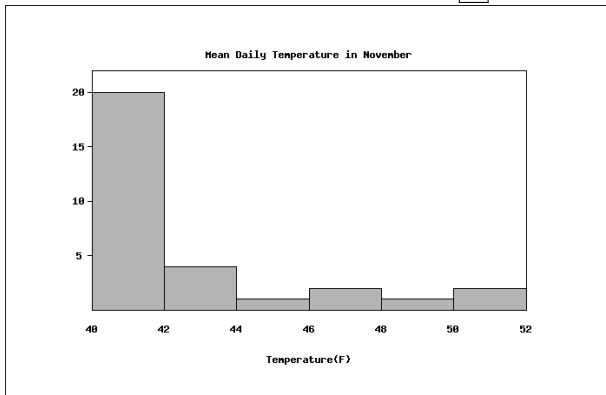
- 12
- 0.04
- 6/23

(correct)

10. (1 point)

The Histogram below gives the mean daily temperature in November for a particular city.

Based on the given distribution the median is

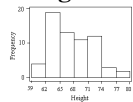


Answer(s) submitted:

- less than the mean

(correct)

11. (1 point) Consider the histogram given below: (Click on the image for a larger view.)



(a) Which of the following is a correct statement?

- A. Approximately half the students have heights between 65 and 71 inches.
- B. The tallest person must have a height of at least 79 inches.
- C. The histogram is symmetric.
- D. None of the above are correct.

(b) The interval that contains closest to 10 students is

- A. 68-71 inches.
- B. 74-80 inches.
- C. 56-68 inches.
- D. 59-65 inches.
- E. None of the above.

Answer(s) submitted:

-
-

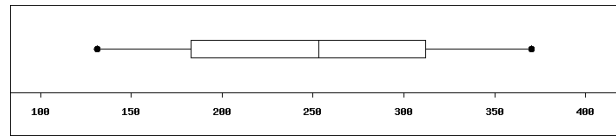
(incorrect)

12. (1 point)

The boxplot below represents annual salaries of attorneys in thousands of dollars in Los Angeles. About what percentage of the attorneys have salaries between \$253,000 and \$370,000?

- A. 50%

- B. 25%
- C. 75%
- D. 85%
- E. None of the Above



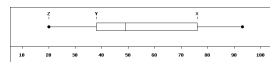
Answer(s) submitted:

-

(incorrect)

13. (1 point)

Consider the following box and whisker plot. Match the letters with the values.



- ___1. X
- ___2. Y
- ___3. Z

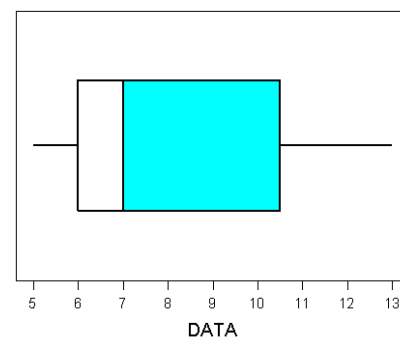
- A. Min
- B. Right Pivot
- C. Mean
- D. Q_3
- E. Q_1

Answer(s) submitted:

-
-
-

(incorrect)

14. (1 point) A boxplot for a set of 92 scores is given below.



How many scores are represented in the blue section of the box-plot?
Answer: _____

Answer(s) submitted:

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(incorrect)

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