

Box and Whisker Plot - Mini Assessment

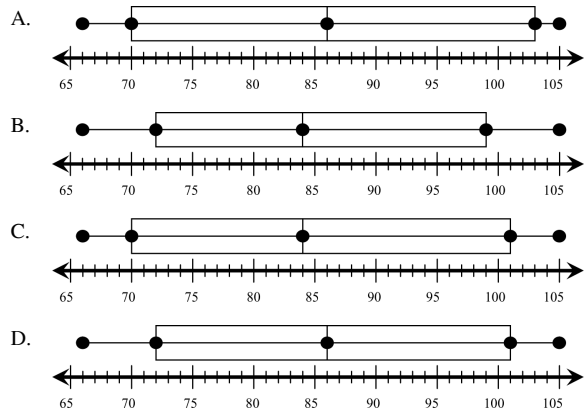
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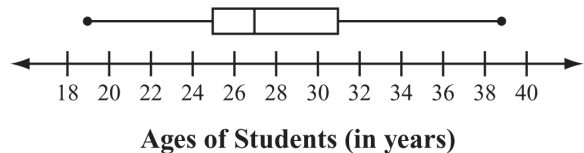
1. The following is an ordered list of monthly normal high temperatures for Phoenix, AZ.

66, 66, 70, 74, 75, 84, 88, 93, 99, 103, 103, 105

Which box-and-whisker plot best displays the data?



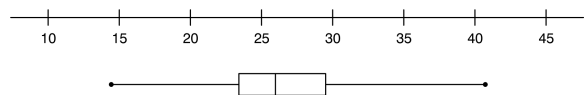
2. Ms. Simmons made the box-and-whisker plot below to show some statistics about the ages of the students in her class at a community college.



Which of the following best represents the median age of the students in her class?

- A. 25 B. 27 C. 29 D. 31

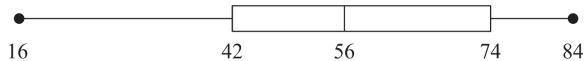
3. The box and whisker graph shown below represents the results of a survey of the estimated gas mileage of 100 car models.



Which statistics—mean, median, mode, range—can be determined from this graph?

- A. mean only B. median only
C. range and mean D. range and median

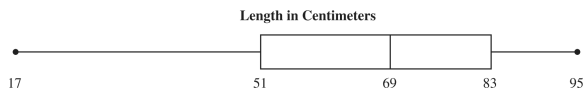
4. The box-and-whisker plot shown below represents 600 scores on a district geometry test.



How many students scored between 42 and 56?

- A. 84 B. 150 C. 300 D. 450

5. The box-and-whisker plot shown below represents the approximate length (in centimeters) of fish caught by a certain fisherman.



What is the *range* of the data?

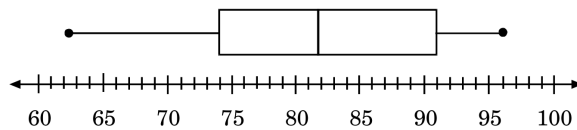
- A. 23 centimeters B. 32 centimeters
C. 78 centimeters D. 95 centimeters

6. Mr. Johnson created a box-and-whisker plot from his students' test grades shown in the stem-and-leaf plot.

Students' Test Grades

6	2	8
7	0	1 4 4 9
8	1	1 1 3 6 8 8
9	0	2 3 3 6 6

Students' Test Grades

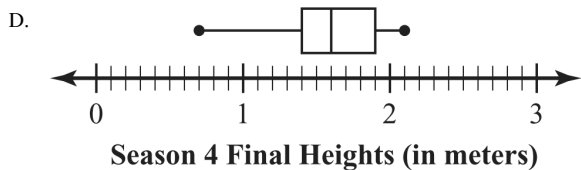
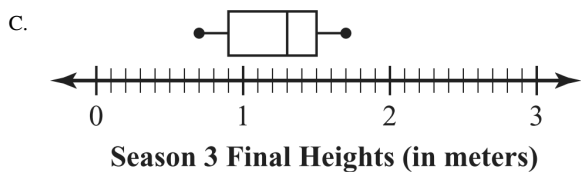
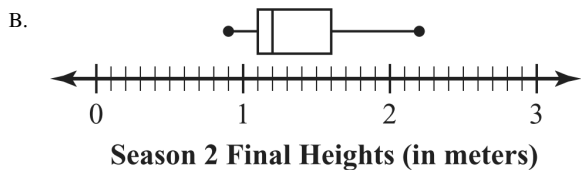
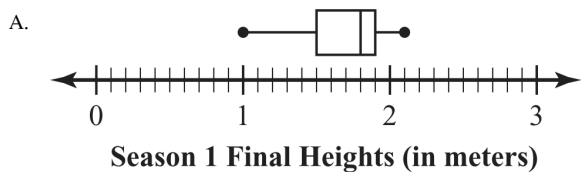


Jessica was absent on the day the test was given. When she took the test, her grade was 51. How will Jessica's grade change the box-and-whisker plot for the test grades?

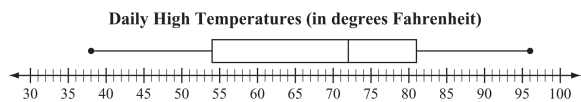
- A. The median will increase.
B. The range will decrease.
C. The upper quartile will increase.
D. The lower quartile will decrease.

7. A researcher collected data on the final heights of corn plants. The data were collected from one farm over four growing seasons. He drew box-and-whisker plots to represent the data he collected for each growing season.

Which of the following box-and-whisker plots shows the *greatest* median final height?



8. The box-and-whisker plot below shows the distribution of the daily high temperatures, in degrees Fahrenheit, in the town of Clifton during the year 2004.



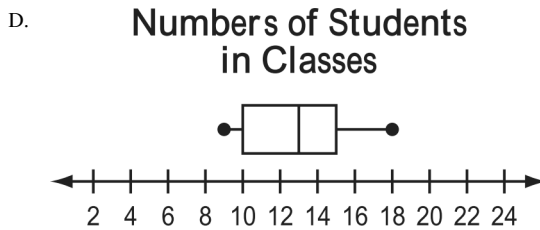
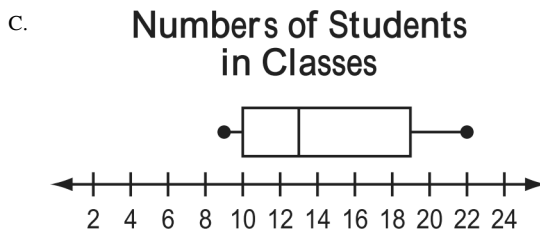
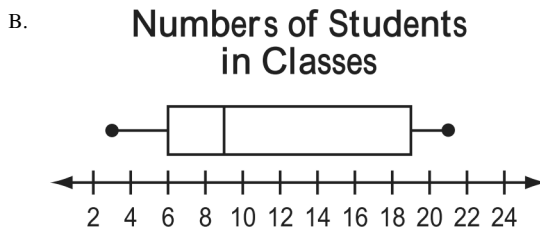
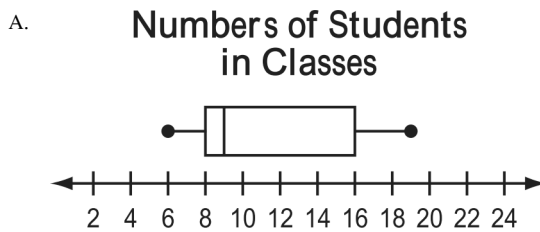
Based on the box-and-whisker plot, in which of the following intervals of temperatures is it most likely that exactly 50% of the daily high temperatures are located?

- A. 38°F to 54°F B. 38°F to 81°F
C. 54°F to 72°F D. 54°F to 81°F

9. A community center offers classes for students.

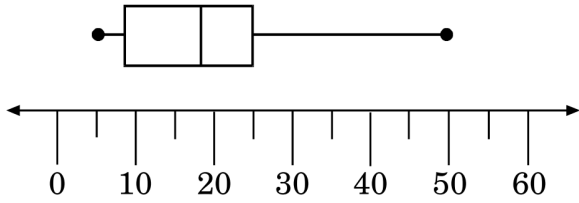
- The range of the number of students in each class is 13.
- The median number of students in each class is 9.

Which of the following box-and-whisker plots could represent the numbers of students in the classes?



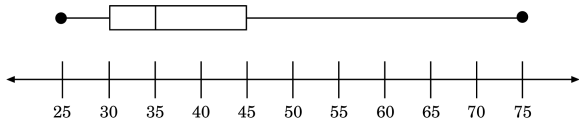
10. Mike created a box-and-whisker plot showing the miles he traveled on ten trips.

Miles Traveled



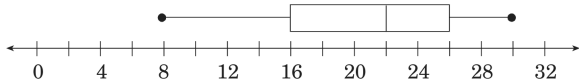
Jake also created a box-and-whisker plot of the miles he traveled on ten trips. His data set has the same median, but its interquartile range is 8. Which statement must be true?

- A. Mike's plot must have a larger box.
 B. Jake's plot must have a larger box.
 C. Mike's plot must have a greater range.
 D. Jake's plot must have a greater range.
11. What is the inter-quartile range for the set of data?



- A. 15 B. 30 C. 45

12. According to this box-and-whisker plot, what percent of students study less than 16 hours per week?



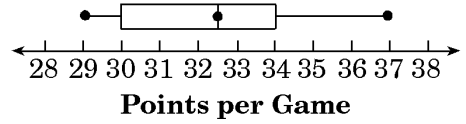
- A. 50% B. 25% C. 16% D. 6%

13. Scoring leaders in the NBA for 1986–1995 had these averages:

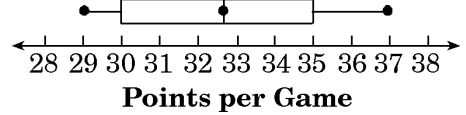
30, 37, 35, 33, 34, 32, 30, 33, 30, 29

Which box plot accurately illustrates these averages?

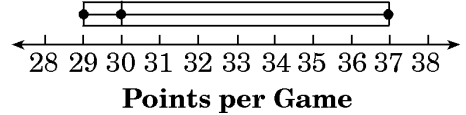
- A. **NBA Top Scoring Averages (1986-1995)**



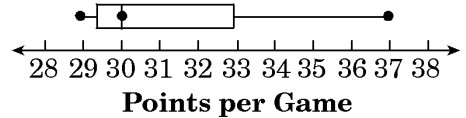
- B. **NBA Top Scoring Averages (1986-1995)**



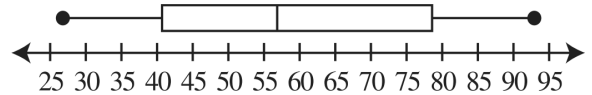
- C. **NBA Top Scoring Averages (1986-1995)**



- D. **NBA Top Scoring Averages (1986-1995)**



14. A set of data was used to make the box-and-whisker plot shown below.



The upper quartile value of the data set is between which two numbers?

- A. 40 and 45 B. 55 and 60
 C. 75 and 80 D. 90 and 95