

Asking Statistical Questions and Showing Data

Grade 6 math · Test · Standards: 6.SP.A.1, 6.SP.A.2, 6.SP.B.4, 6.SP.B.5a, 6.SP.B.5b

Name: _____ Date: _____ Class: _____

This test checks statistical questions and data displays. Read each display carefully, name the unit in every answer, and draw displays with a labeled number line. The test is worth 20 points and should take 45 minutes.

Standards: 6.SP.A.1, 6.SP.A.2, 6.SP.B.4, 6.SP.B.5a, 6.SP.B.5b · **Level:** Grade 6

Time: 45 minutes · 8 questions · Total: 20 points · Calculator: as allowed by your teacher

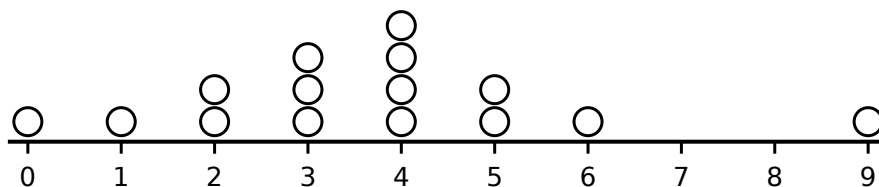
Question 1 Statistical or not (2 points)

Decide whether each question is statistical.

- How many students ride the bus to Cedar Ridge Middle School each morning? (1 point)
- How many students are enrolled in room 14? (1 point)

Question 2 Reading a dot plot (3 points)

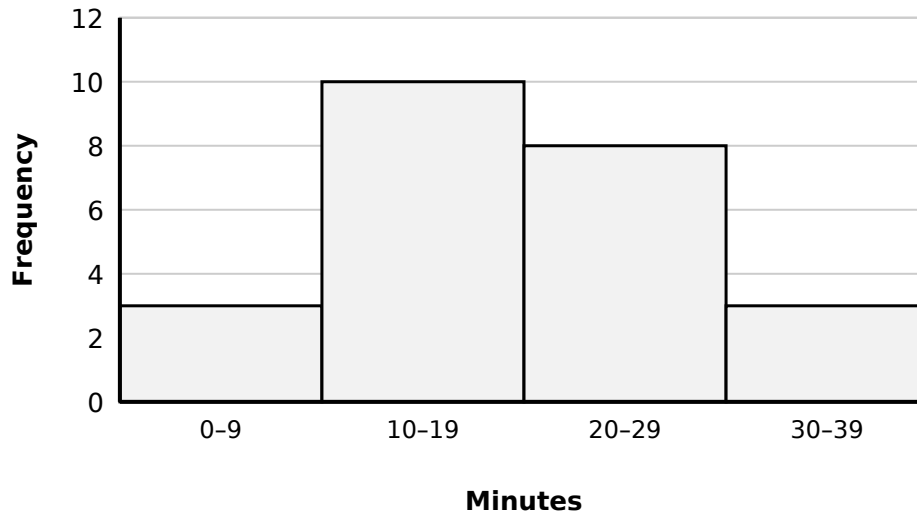
The dot plot shows the number of books read during the summer by 15 students.



- How many students are shown? (1 point)
- How many students read more than 4 books? (1 point)
- Describe the value that is far from the others. (1 point)

Question 3 Reading a histogram (3 points)

The histogram shows how many minutes 24 students take to eat lunch.

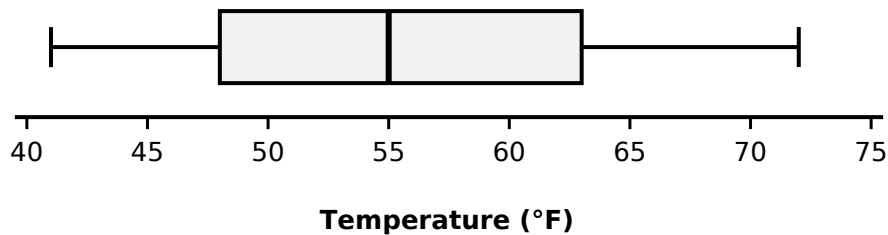


Minutes to eat lunch.

- How many students are shown? (1 point)
- Which interval has the most students? (1 point)
- How many students take 20 minutes or more? (1 point)

Question 4 Reading a box plot (3 points)

The box plot shows daily high temperatures in April.



Daily high temperatures in April.

- Give the median. (1 point)
- Find the range. (1 point)
- Between which two temperatures does the middle half of the days fall? (1 point)

Question 5 Describe a data set (2 points)

The lengths in inches of 10 fish caught at a lake are 8, 9, 9, 10, 11, 11, 11, 12, 13 and 18.

- State the number of observations, the attribute and the unit. (1 point)
- Give the least and greatest lengths. (1 point)

Question 6 Draw a dot plot (3 points)

Draw a dot plot for these 12 values: 3, 4, 4, 5, 5, 5, 6, 6, 7, 7, 7, 9. Label the number line.

(1 point for the number line, 2 points for the dots)

Question 7 Choose a display (2 points)

A coach has the times of 60 swimmers and wants to group them in 5-second intervals.

- a. Name the best display. *(1 point)*
- b. Give one reason. *(1 point)*

Question 8 Write a question (2 points)

Write a statistical question about the hours of sleep that sixth graders get on school nights, and explain why it is statistical.

(1 point for the question, 1 point for the explanation)