

# Grade 6 · Statistical Questions and Data Displays · Test

Common Core 6.SP.A.1, 6.SP.A.2, 6.SP.B.4, 6.SP.B.5a, 6.SP.B.5b · mathovore.fr

Name: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Score: \_\_\_\_\_

This 45-minute test checks Grade 6 skills on statistical questions, dot plots, histograms, and box plots. It has eight questions worth 20 points in all. Show your work, label your graphs, and include units whenever the data have them.

## Test information

- **Grade:** Grade 6
- **Chapter:** Statistical Questions and Data Displays
- **Common Core:** 6.SP.A.1, 6.SP.A.2, 6.SP.B.4, 6.SP.B.5a, 6.SP.B.5b
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 3 pts; Question 4: 3 pts; Question 5: 3 pts; Question 6: 3 pts; Question 7: 2 pts; Question 8: 2 pts)

## Question 1: Statistical questions (2 points)

Tell whether each question is a statistical question.

- How many text messages did Noah send on Saturday? (1 point)
- How many text messages do sixth graders at Park Middle School send in one day? (1 point)

## Question 2: Write a question (2 points)

Rewrite "How many pets does Liam have?" as a statistical question about the students in a sixth-grade class.

## Question 3: Dot plot (3 points)

The dot plot shows the hours of TV that 15 students watched on Sunday.

- How many students watched 3 hours or more? (1 point)
- Describe where most of the data cluster. (1 point)

c. Identify any value that is far from the rest. (1 point)

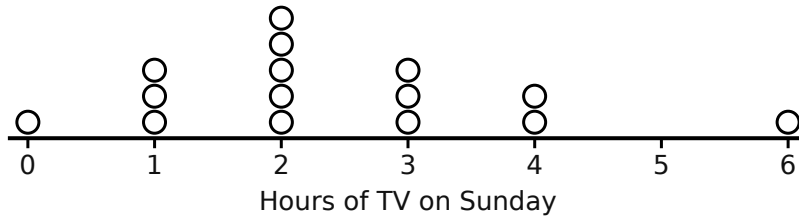


Figure for Question 3.

#### Question 4: Histogram (3 points)

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The histogram shows the minutes that 30 students exercise in a week. Each interval includes its left endpoint but not its right endpoint.

- How many students exercise for fewer than 40 minutes? (1 point)
- Which interval has the most students? (1 point)
- The middle value of the 30 data values lies in which interval? (1 point)

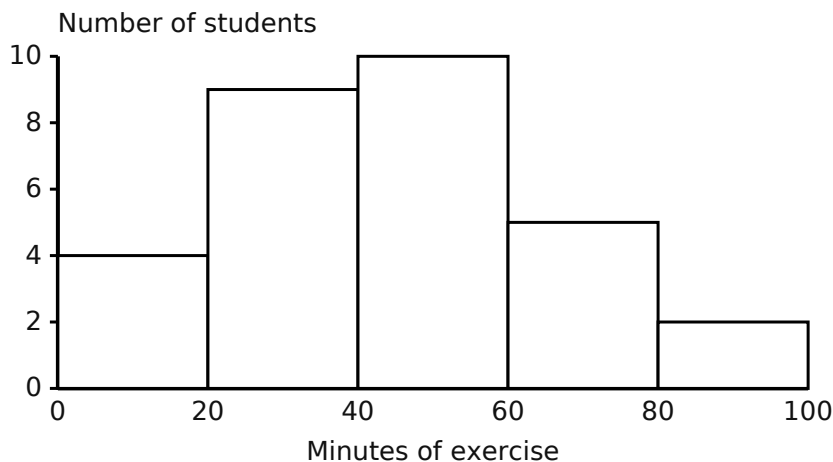


Figure for Question 4.

#### Question 5: Box plot (3 points)

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The box plot shows the number of minutes that 40 students spend on a bus.

- What is the median? (1 point)
- Between which two numbers do the middle 50% of the values lie? (1 point)
- What are the least and greatest values? (1 point)

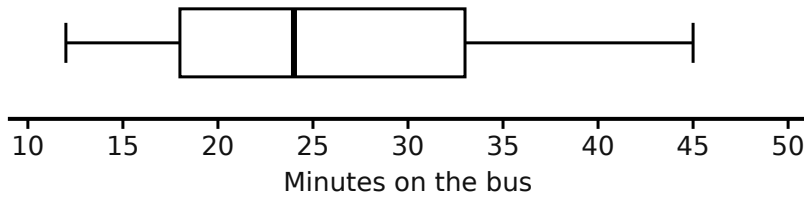


Figure for Question 5.

### Question 6: Draw a box plot (3 points)

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A coach recorded the number of shots on goal taken by a soccer team in 9 games: 11, 6, 15, 4, 9, 17, 6, 12, 8.

- Find the minimum, first quartile, median, third quartile, and maximum. (2 points)
- Draw a box plot. (1 point)

### Question 7: Describe the data (2 points)

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Maya timed how long 8 classmates took to finish a puzzle, to the nearest minute: 12, 14, 14, 15, 15, 15, 16, and 31 minutes.

- State the number of observations, the attribute, and the unit. (1 point)
- Identify the value that is far from the rest. (1 point)

### Question 8: Compare displays (2 points)

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Explain one way a histogram and a dot plot are different.