

Grade 6 data and probability test

NAME	DATE	SCORE / 8
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Answer each question. Show your work.

1

What is the mean (average) of 5, 8, 12, 15?

2

These numbers are in order: 15, 16, 20, 21, 25, 27, 31, 32. What is the interquartile range of these numbers?

3

The list shows how many pages each child read: 30, 28, 11, 26, 6, 5, 13, 9, 28, 11, 28, 8, 28, 12, 28, 17. What is the median number of pages?

4

Ivy records the temperature outside at noon each day for a month. How could the data be measured?

☐

 With a thermometer

☐

 With a tape measure

☐

 By counting the children in the class

☐

 With a scale

5

Is “What is the favorite sport of the children at my school?” a statistical question?

☐

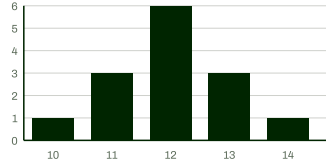
 Yes

☐

 No

6

The chart shows how many children scored each number of points. What is the range of the number of points?



7

The tally shows how many books each child read last month. How many observations are in the data set?

1 book

||

2 books

||

3 books

||||

4 books

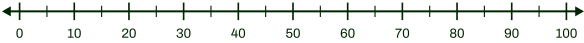
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5 books

||

8

A data set has a minimum of 5, a lower quartile of 25, a median of 65, an upper quartile of 75 and a maximum of 90. Draw a box plot of the data on the number line below.

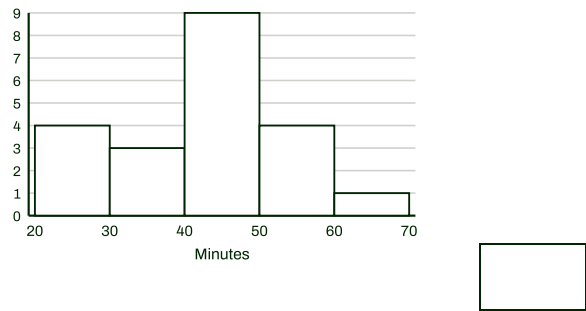


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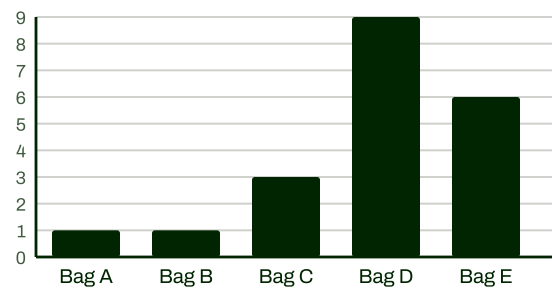
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Answer each question. Show your work.

9 The histogram shows how many minutes each student in a class read last night. How many students read for at least 60 minutes?



10 The graph shows how many apples are in each bag. 5 more apples are put in Bag C. How does the mean number of apples per bag change?



- ☐ It goes up by 5
- ☐ It stays the same
- ☐ It goes down by 1
- ☐ It goes up by 1

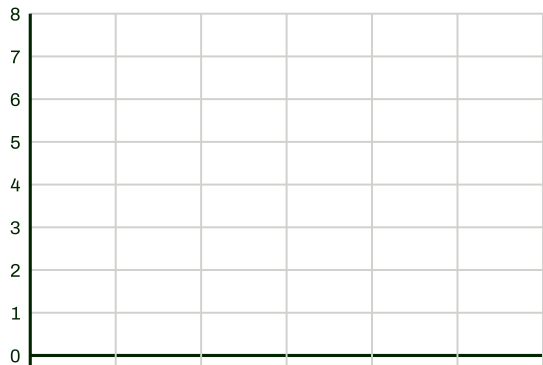
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Answer each question. Show your work.

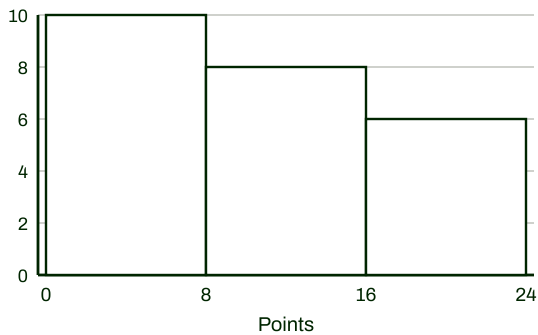
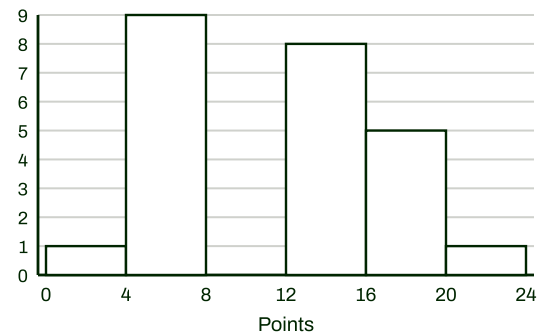
11

The numbers of minutes some students spent reading last night are 40, 3, 46, 28, 40, 24, 27, 38, 2, 46, 7, 2, 28, 27, 37, 21, 3, 5, 37, 2, 17, 28. Make a histogram of the minutes on the grid below, with bars for 0–9, 10–19, 20–29, 30–39 and 40–49.



12

Both histograms show the same data: how many points each player scored in a game. Which histogram hides a real feature of the data?



- ☐ The bottom one: it shows fewer players
- ☐ The bottom one: its wider bars hide the gap between two groups
- ☐ The top one: its narrower bars invent a gap
- ☐ Neither: the same data always gives the same shape

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- 1

10
- 2

11
- 3

15
- 4

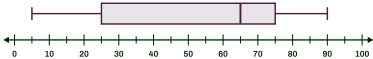
With a thermometer
- 5

Yes
- 6

4
- 7

13
- 8
- 9

1

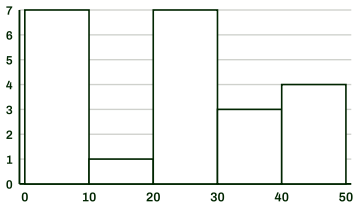


A box from 25 to 75 with a line across it at 65, and whiskers out to 5 and 90, each within half a mark of its value on the scale. A box drawn with the median in its middle, or not to the scale, does not count.

- 10

It goes up by 1
- 11
- 12

The bottom one: its wider bars hide the gap between two groups



5 bars that touch, with heights 7, 1, 7, 3 and 4 over 0–9, 10–19, 20–29, 30–39 and 40–49. The bottom axis numbered 0, 10, 20, 30, 40 and 50 at the edges of the bars, like a number line. Gaps between the bars, or one bar for each value, do not count.