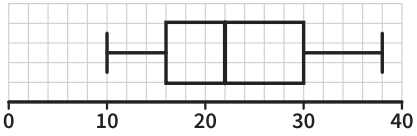
Box plots

ANSWERS

1

The box plot shows the ages of the people on a bus. Write down the five values. Find the interquartile range.

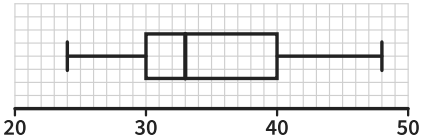


Lowest	Lower quartile	Median	Upper quartile	Highest
10	16	22	30	38

Interquartile range 30 – 16 = 14

2

The box plot shows the marks in a spelling test. Write down the five values. Find the interquartile range.

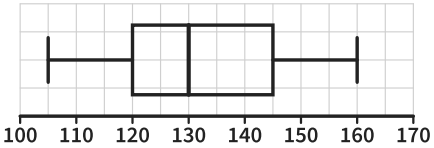


Lowest	Lower quartile	Median	Upper quartile	Highest
24	30	33	40	48

Interquartile range 40 – 30 = 10

3

The box plot shows the heights, in cm, of some sunflowers. Write down the five values. Find the interquartile range.

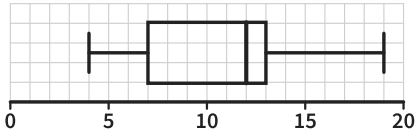


Lowest	Lower quartile	Median	Upper quartile	Highest
105	120	130	145	160

Interquartile range 145 – 120 = 25

4

The box plot shows how many texts some people sent in a day. Write down the five values. Find the interquartile range.



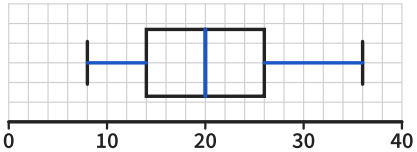
Lowest	Lower quartile	Median	Upper quartile	Highest
4	7	12	13	19

Interquartile range 13 – 7 = 6

5

The times, in minutes, some people waited at a doctor's. Draw a box plot. Find the interquartile range.

Lowest	Lower quartile	Median	Upper quartile	Highest
8	14	20	26	36

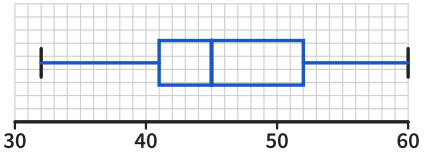


Interquartile range 26 – 14 = 12

6

The masses, in kg, of some dogs. Draw a box plot. Find the interquartile range.

Lowest	Lower quartile	Median	Upper quartile	Highest
32	41	45	52	60

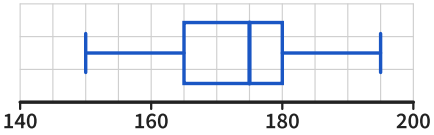


Interquartile range 52 – 41 = 11

7

The lengths, in cm, of some snakes. Draw a box plot. Find the interquartile range.

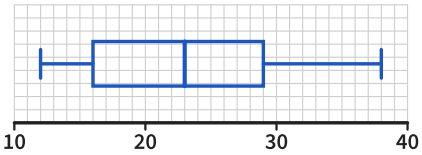
Lowest	Lower quartile	Median	Upper quartile	Highest
150	165	175	180	195



Interquartile range 180 – 165 = 15

8 *Notice the change!*

The lowest is 12, the upper quartile is 29, the median is 23, the highest is 38 and the lower quartile is 16. Draw a box plot. Find the interquartile range.



Interquartile range 29 – 16 = 13

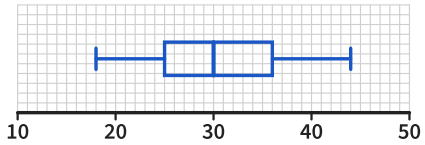
Box plots *further practice*

ANSWERS

9

Draw a box plot for these marks.
Find the interquartile range.

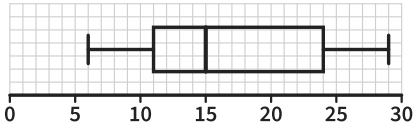
Lowest	Lower quartile	Median	Upper quartile	Highest
18	25	30	36	44



Answer IQR 11

10

The box plot shows the ages of some swimmers. Find the median, the range and the interquartile range.



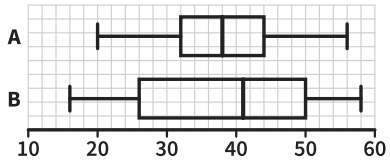
range 29 – 6 = 23

IQR 24 – 11 = 13

Answer 15, 23, 13

11

The box plots show the scores of two teams, A and B. Compare the scores.



medians: A 38, B 41

IQRs: A 12, B 24

Answer B higher; A more consistent

12

A box plot shows the heights of 60 plants. How many plants are taller than the upper quartile?
How many are between the lower quartile and the median?

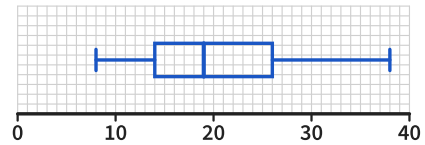
a quarter of 60 = 15

a quarter of 60 = 15

Answer 15; 15

13

The lowest is 8 and the range is 30.
The lower quartile is 14 and the interquartile range is 12.
The median is 19. Draw the box plot.



8 + 30 = 38

14 + 12 = 26

Answer highest 38, UQ 26

14

Lowest 6, lower quartile 15, median 21, upper quartile 27, highest 40.
Sam says the interquartile range is 34.
Explain his mistake.

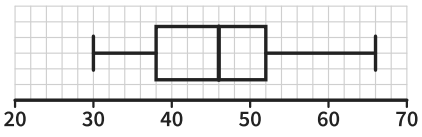
40 – 6 = 34 is the range

IQR = upper quartile – lower quartile

Answer 27 – 15 = 12

15

The box plot shows the times, in minutes, of 80 runners in a race.
About how many runners took longer than 46 minutes?



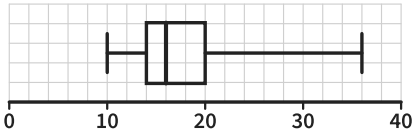
46 is the median

half of 80 = 40

Answer 40

16

The box plot shows some quiz scores.
Mo says more people scored over 20 than under 14, because that whisker is longer. Is he right?



each whisker holds a quarter of the data

the longer one is just more spread out

Answer No