

Find quartiles from a list of data

Maths

Miss Parnham



Find quartiles from a list of data

1. Find the median, upper and lower quartiles and the interquartile range for each data set.

a) 4, 5, 5, 7, 10, 11, 11

b) 15, 9, 16, 19, 7, 9, 11

c) 8, 11, 14, 4, 6, 10, 18, 11, 15, 3, 7

d) 2.7, 8.9, 4.35, 1.08, 4.8, 3, 6.12

2. Jack is finding the median and interquartile range for this data set.

9, 4, 6, 7, 11, 7, 7, 8, 12
 ↑ ↑ ↑
 Q_1 Q_2 Q_3
 Median = 11, IQR = 2.5

What mistake has he made?

Find the correct answers.



Find quartiles from a list of data

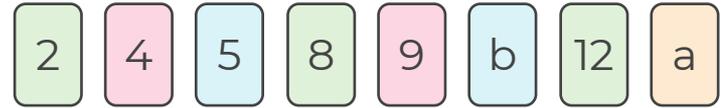
3. Find the median, upper and lower quartiles and the interquartile range for each data set.

a) 3, 6, 8, 9

b) 7, 4, 1, 10, 3, 5, 4, 9

c) 2.6, 4, 3.12, 5.5, 2.03, 4.3, 3.6, 5.9

4. These cards have been ordered.



The range is double the median.

The interquartile range is 6

Use this information to find a and b.



Answers



Find quartiles from a list of data

1. Find the median, upper and lower quartiles and the interquartile range for each data set.

a) 4, 5, 5, 7, 10, 11, 11

Median 7, UQ 11, LQ 5, IQR 6

b) 15, 9, 16, 19, 7, 9, 11, 7, 9, 9, 11, 15, 16, 19

Median 11, UQ 16, LQ 9, IQR 7

c) 8, 11, 14, 4, 6, 10, 18, 11, 15, 3, 7

3, 4, 6, 7, 8, 10, 11, 11, 14, 15, 18

Median 10, UQ 14, LQ 6, IQR 8

d) 2.7, 8.9, 4.35, 1.08, 4.8, 3, 6.12

1.08, 2.7, 3, 4.35, 4.8, 6.12, 8.9

Median 4.35, UQ 6.12, LQ 2.7, IQR 3.42

2. Jack is finding the median and interquartile range for this data set.

9, 4, 6, 7, 11, 7, 7, 8, 12

Q_1 Q_2 Q_3

Median = 11, IQR = 2.5

What mistake has he made?

He has not ordered the data first

Find the correct answers.

4, 6, 7, 7, 7, 8, 9, 11, 12

Q_1 Q_2 Q_3

Median 7, UQ 10,
LQ 6.5, IQR 3.5



Find quartiles from a list of data

3. Find the median, upper and lower quartiles and the interquartile range for each data set.

a) 3, 6, 8, 9

Median 7, UQ 8.5, LQ 4.5, IQR 4

b) 7, 4, 1, 10, 3, 5, 4, 9, 1, 3, 4, 4, 5, 7, 9, 10

Median 4.5, UQ 8, LQ 3.5, IQR 4.5

c) 2.6, 4, 3.12, 5.5, 2.03, 4.3, 3.6, 5.9

2.03, 2.6, 3.12, 3.6, 4, 4.3, 5.5, 5.9

Median 3.8, UQ 4.9, LQ 2.86, IQR 2.04

4. These cards have been ordered.



The range is double the median.

The interquartile range is 6

Use this information to find a and b.

Median is 8.5

Range is 17

$a = 2 + 17 = 19$

LQ is 4.5

UQ is 10.5

$b = 2(10.5) - 12 = 9$

