

# Calculating the Interquartile Range

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Work out the median and interquartile range of each of the following sets of data showing clearly all the steps in your working.

*Calculators allowed*

1) 3,9,12,15,16,18,21

2) 152, 167, 159, 162, 140, 157, 163, 160, 155, 141, 158

3) 1.4, 2.7, 0.2, 3.5, 4.1, 2.3, 1.9, 2.2, 1.6, 2.0, 1.6, 2.6, 2.2, 1.8, 2.9, 3.0

4) 5, 9, 11, 13, 16, 16, 19, 21

5) 62,51,48,55,56,43,59,48,57,60,47,55

## Extension:

Amy counted the number of letters in each of 30 sentences in a newspaper.

Amy showed his results in a stem and leaf diagram.

0		8	8	9					
1		1	2	3	4	4	8	9	
2		0	3	5	5	7	7	8	
3		2	2	3	3	6	6	8	8
4		1	2	3	3	5			

Key 4|1 stands for 41 letters

(a) Write down the number of sentences with 36 letters.

(1)

(b) Work out the median.

(1)

(c) Work out the Interquartile range

(3)

As part of an enquiry collecting primary physical geography data, a student measured pebble sizes at one location on a beach.

The results are shown in **Figure 9**.

**Figure 9**

Pebble size is measured along the long axis.	Sample	Pebble size in centimetres
	1	12
	2	5
	3	7
	4	9
	5	4
	6	11
	7	9
	8	11
	9	6
	10	13
	11	21

**0 4 . 8** Using the data in **Figure 9**, calculate the interquartile range of the pebble size data.

Show your working in the space below.

**[2 marks]**

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**Interquartile range =                      cm**

One mark for correct interquartile range: 6 cm (only possible answer). One mark for indication of calculation, eg upper quartile = 12, lower quartile = 6. AO4 = 2 marks	<b>2</b>
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