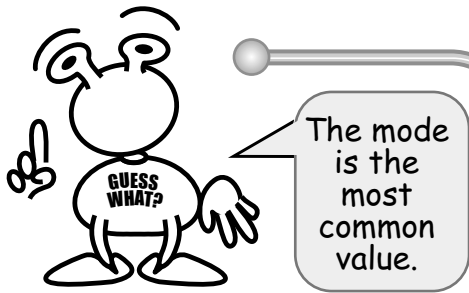


Mode and range

1 The mode

Example

red, green, green, blue.
The mode is 'green'.



Find the mode of each set:

- 1 4 5 5 7 mode =
- 2 red green orange red mode =
- 3 8 6 6 3 3 6 mode =
- 4 bird dog cat dog dog cat mode =

Example

It is possible to have two modes.
4, 7, 7, 8, 8, 5
There are two modes.
The modes are 7 and 8.

Example

It is possible to have no mode.
4, 4, 7, 7, 8, 8, 5, 5
There is no mode.
All values are equally common.

- 5 10 3 2 3 5 2 mode =
- 6 5 4 2 3 0 10 mode =
- 7 pink yellow blue pink green mode =
- 8 tiger lion tiger elephant lion mode =
- 9 -1 3 0 4 5 mode =
- 10 2 3 -2 -3 2 3 mode =

Mode and range

2

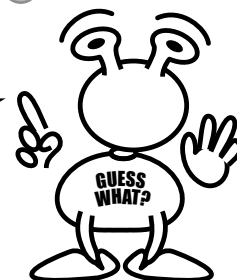
The range

Example

Work out the range of this set:

2, 7, 7, 8, 8, 5

Range =
largest – smallest
8 – 2



Work out the range of each set:

1 1 4 4 5 6

range =

2 3 9 7 7 3

range =

3 2 7 5 10 5

range =

4 2 8 15 5

range =

Work out the mode and range of each set:

5 5 3 2 2

mode = range =

6 10 9 8 8 4

mode = range =

7 4 4 4 6 6 5

mode = range =

8 5 7 9 10 6 5

mode = range =

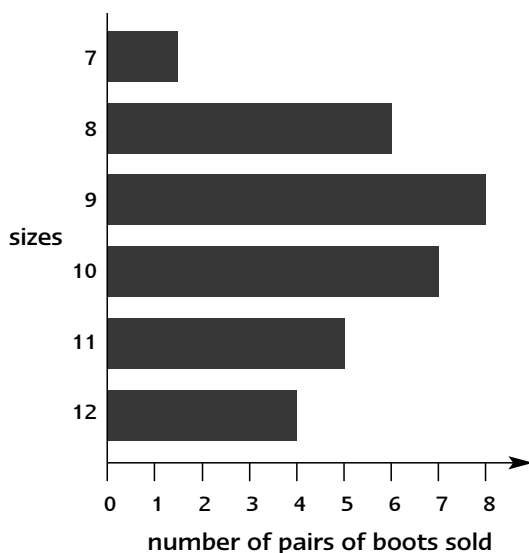
9 8 9 10 8 7 9

mode = range =

10 20 30 14 16 10 9

mode = range =

- 11 This chart shows the number of pairs of Bovva Boots sold last week in different sizes:



Work out:

- (a) the most common size of boots (the mode) that were sold last week

.....

- (b) the range of sizes sold

.....

UNIT
4

Mode and range



Reading from tables and charts

★ ★ ●

11 correct 2 stars
8-10 correct 1 star

1 Some Year 7 pupils were asked which animal they would not like to meet. Here is what they said:

Worst animal	Number of pupils
Snake	8
Tiger	3
Shark	6
Bear	2
Spider	10
Wolf	7

(a) How many pupils chose 'shark'?

.....

(b) How many pupils were asked?

.....

(c) What was the most common choice (the mode)?

.....

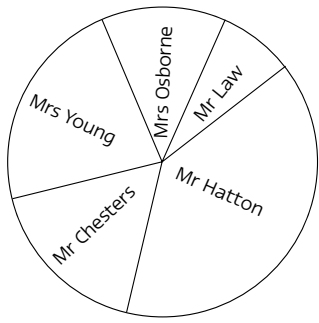
2 Some Year 7 pupils were asked which maths teacher told the worst jokes. The pie chart shows their choices.

(a) Which teacher was chosen the least?

.....

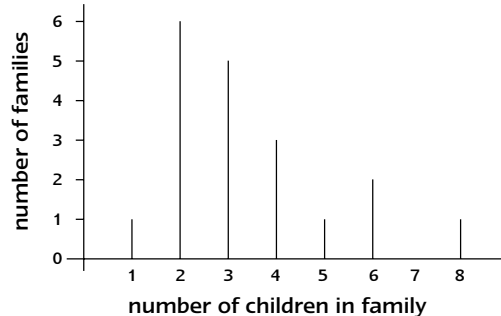
(b) Which teacher was chosen by the most pupils (the mode)?

.....



3 Some Year 7 pupils were asked how many children there were in their family.

Family sizes



(a) How many families have two children?

.....

(b) How many families have eight children?

.....

(c) What is the mode?

.....

(d) What is the range of family sizes?

.....

Mode and range**Working with mode and range**

All correct 1 star

- 1 Class 7XY did a survey of the price of a tin of beans in the local shops.

The prices were: 24p 25p 26p 27p 24p 25p 26p 26p

Work out:

- (a) the modal price (the mode)
- (b) the range of prices

- 2 During the twelve days of Christmas, the midday temperatures in °C were:

2 -2 4 -2 0 1 -5 -6 -4 1 1 0

Work out:

- (a) the modal temperature (the mode)
- (b) the temperature range