	Mode	**Median**	**Mean**
Advantages	Very easy to find Not affected by extreme values Can be used for non-numerical data	Easy to find for ungrouped data Not affected by extreme values	Easy to find Uses all the values The total for a given number of values can be calculated from it
Disadvantages	Doesn't use all the values May not exist	Doesn't use all the values Often not understood	Extreme values can distort it Has to be calculated
Used for	Non-numerical data For finding the most likely value	Data with extreme values	Data whose values are spread in a balanced way

EXERCISE 11A

1 Shopkeepers always want to keep the most popular items in stock. Which average do you think is often known as the shopkeeper's average?

2 A list contains seven even numbers. The largest number is 24. The smallest number is half the largest. The mode is 14 and the median is 16. Two of the numbers add up to 42. What are the seven numbers?

3 The marks of 25 students in an English examination are as follows.

55, 63, 24, 47, 60, 45, 50, 89, 39, 47, 38, 42, 69, 73, 38, 47, 53, 64, 58, 71, 41, 48, 68, 64, 75

Find the median.

4 Decide which average you would use for each of the following. Give a reason for your answer.

a The average mark in an examination.

b The average pocket money for a group of 16-year-old students.

c The average shoe size for all the girls in Year 10.

d The average height for all the artistes on tour with a circus.

e The average hair colour for pupils in your school.

f The average weight of all newborn babies in a hospital's maternity ward.

5 A pack of matches consisted of 12 boxes. The contents of each box are as follows.

34   31   29   35   33   30   31   28   29   35   32   31

On the box it states that the average contents is 32 matches. Is this correct?