Averages (Mean)

Exercise 1

1) Calculate the mean of this list

   2, 4, 6, 8, 10, 12, 16, 18, 20

2) In nine maths tests during a year a boy scored

   20, 22, 18, 21, 22, 16, 14, 19, 17

   Find the mean.

3) The hours of sunshine recorded at a seaside resort in seven successive days were:-

   7·3, 4·8, 1·7, 6·4, 5·9, 7·6, 6·9

   Find the mean.

4) The members of a schools' relay team weighed:

    47·5 kg, 49 kg, 52 kg and 53·5 kg.

   Find the mean.

5) The length in minutes of telephone calls made by a business man on a certain day were:-

   3, 7, 10, 2, 4, 8, 11, 9, 6, 3
   2, 4, 8, 15, 14, 10, 8, 7, 4, 7

   Find the mean.

6) The following w the temperatures in Edinburgh in 1985 for the first 14 days in June:-

    21·9, 20·8, 23·1, 17·5, 11·4, 11·8, 13·0

    15·1, 16·0, 15·5, 13·3, 11·2, 13·0, 16·2

   Find the mean.

Averages (Mode)

Exercise 1

Find the mode for each set of numbers:-

1) 2, 3, 4, 4, 7

2) 2, 3, 4, 5, 5, 6, 7, 8

3) 2, 3, 4, 4, 4, 5, 6, 6, 6, 6, 7

4) 8, 9, 7, 8, 5, 6, 9, 7, 9, 10, 9

5) 1, 5, 4, 2, 1, 1, 3, 5, 4, 3, 2, 4, 6, 4

6) £12, £13, £13, £13, £14, £15, £15, £16, £17

7) Twelve boys apply to go on an outward bound course. Their ages are:-
   16, 14, 15, 16, 15, 17, 15, 16, 15, 17, 16, 15
   Find the mode of their ages.

8) The list below shows how many pupils in class 2B were absent on each day of a three-week period.

Mon	0	Mon	2	Mon	0
Tue	1	Tue	1	Tue	0
Wed	2	Wed	1	Wed	1
Thu	2	Thu	0	Thu	2
Fri	1	Fri	1	Fri	2

Find the modal number of absentees.

9) A cricketer plays for one club for fifteen seasons. The list below shows how many centuries that he scored in each of the seasons:-
   4, 3, 0, 5, 4, 5, 2, 4, 1, 2, 4, 1, 0, 2, and 0

   Find his modal number of centuries.

10) The list below shows how many suits were sold at a tailor's shop on each day of a three week period:-
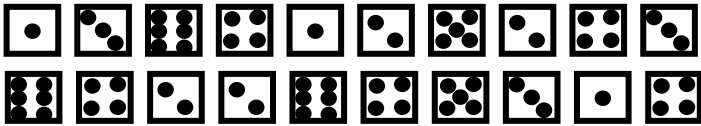
Mon	2
Tue	1
Wed	4
Thu	2
Fri	3
Sat	5

Mon	1
Tue	4
Wed	3
Thu	2
Fri	5
Sat	2

Mon	4
Tue	1
Wed	5
Thu	3
Fri	2
Sat	4

Find the modal number of suits sold.

11) A die is thrown twenty times and the scores are shown below:-

Find the modal score.

12) The list below shows how many lunches a café served on each day of a three week period:-

Mon	5
Tue	7
Wed	6
Thu	5
Fri	6
Sat	4

Mon	4
Tue	7
Wed	5
Thu	6
Fri	5
Sat	6

Mon	5
Tue	5
Wed	8
Thu	7
Fri	6
Sat	7

Find the modal number of lunches served.

13) A footballer made twenty appearances during a certain season and scored the following numbers of goals in the matches:-

0, 1, 2, 1, 0, 2, 3, 0, 1, 2, 1, 0, 3, 0, 1, 2, 1, 3, 3, 2

Find the modal number of goals that he scored.

14) The list below shows how many pupils there are in each of the twenty classes at Westmead school.

26, 25, 24, 22, 24, 23, 26, 25, 23, 25
26, 24, 25, 25, 22, 23, 23, 25, 24, 23

Find the modal number of pupils per class.

15) A girl's tennis club has 25 members and shown below are their ages:-
16, 18, 15, 18, 16, 15, 14, 16, 17, 15, 17, 16,
17, 14, 18, 16, 18, 15, 18, 17, 17, 16, 17, 18,
17

Find the modal age of the members.

Averages (Median)

Exercise 1
Find the median for each set of numbers:-

1) 1,2, 3, 4, 4, 7

2) 2, 3, 4, 5, 5, 7, 8

3) 2, 3, 4, 4, 4, 5, 6, 6, 6, 6, 7

4) 8, 9, 7, 8, 5, 6, 9, 7, 9, 10, 9

5) 1, 5, 4, 2, 1, 1, 3, 5, 4, 3, 2, 4, 6, 4

6) 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

7) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

8) 3, 6, 9, 12, 15, 18, 21, 24, 27

9) 5, 10, 15, 20, 25, 30, 35

10) 4, 14, 24, 34, 44, 54, 64

11) 37, 43, 57, 68, 72, 89

12) £2·50, £3·83, £1·98, £4·25, £5·29

Averages (Mixed) including RANGE

Exercise 1

In each question find the mean, median, mode and range:-

1) **a)** 1, 2, 2, 9, 10
   b) 13, 16, 17, 21, 21
   c) 20, 20, 23, 23, 23, 24, 26
   d) 35, 40, 47, 53, 61, 94, 94

2) **a)** 2, 3, 5, 5
   b) 4, 4, 6, 10, 11, 15
   c) 3, 4, 5, 8, 12, 12, 14, 16
   d) 0, 0, 1, 1, 5, 9, 10, 10, 10, 16

3) **a)** 6, 5, 3, 2, 6
   b) 6, 3, 4, 6, 11
   c) 9, 8, 9, 12, 7
   d) 14, 15, 13, 11, 11, 19, 15
   e) 22, 29, 27, 41, 32, 23, 22
   f) 14, 15, 14, 15, 14, 12, 13, 16

4) **a)** 5, 4, 2, 5
   b) 6, 3, 6, 9
   c) 23, 18, 11, 11, 16, 17
   d) 26, 28, 31, 23, 23, 37
   e) 50, 45, 44, 45
   f) 48, 56, 62, 68, 56, 52
   g) 70, 73, 74, 76, 73, 72

5) **a)** 25, 25, 24, 22, 23, 21, 28
   b) 64, 58, 56, 55, 56, 59
   c) 75, 54, 46, 50, 46, 70, 58
   d) 121, 80, 89, 86, 99, 89
   e) 62, 66, 80, 140, 70, 62
   f) 82, 82, 80, 80, 85, 85, 80