# INTERPRETING THE MEAN 2

**TARGET** To calculate and interpret the mean of a set of data.

The mean or average of a set of data is found by dividing the total of the values by the number of items in the set.

MEAN = TOTAL ÷ ITEMS

*Examples*

1 The number of letters delivered in the post each morning.

| M | Tu | W | Th | F | Sat |
|---|---|---|---|---|---|
| 4 | 7 | 6 | 3 | 8 | 2 |

Total of letters = 30.
Number of deliveries = 6.
Mean number of letters in each delivery 5 = (30 ÷ 6).

2 The ten anglers on a riverbank caught the following number of fish each.

8 11 5 9 6 10 7 9 4 ☐

The mean number of fish caught by each angler was 7·5. How many fish were caught by the tenth angler?

Total of fish caught by:
1st nine anglers = 69
All ten anglers = 75 (7·5 × 10)
10th angler = 6 (75 − 69)

## A

For each set of data find:

**a)** the total of the values
**b)** the number of items in the set
**c)** the mean.

1 The number of tries scored by a rugby team in each of their first nine games.

2 4 1 7 1 3 2 6 1

2 The weight of five packets of cheese.

220 g 260 g 210 g 220 g 240 g

3 The speed in miles per hour of seven cars.

65 55 40 50 55 75 45

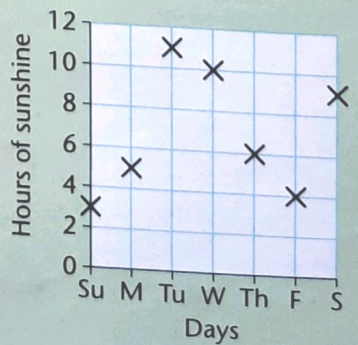
4 The number of minutes taken by a barber to cut the hair of eleven customers.

10 12 11 13 7 12
13 6 14 10 13

5 The marks of ten children in their weekly spelling tests.

7 10 9 10 6
8 10 6 9 10

6 The number of hours of sunshine each day in one week.



## B

**1** The opening batsman in a cricket team scored the highest number of runs in his team's innings. The other ten batsmen made the following scores.

1 35 17 0 15 40 0 8 1 0

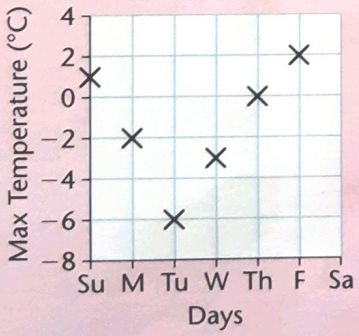
The mean score for the eleven batsmen was 20. Find the opening batsman's score.

**2** The first 12 customers at a booking office each bought the following number of cinema tickets.

2 1 3 16 1 4
1 5 4 1 7 2

After the 13th customer the mean number of tickets for each customer was 4. Find the number of tickets bought by the 13th customer.

**3** The daily maximum temperatures recorded for six days in January.




When the temperature on Saturday was included the mean temperature for the week was −1°C. Find the Saturday temperature.

## C

Investigating friction, Chloe let a marble roll down a ramp onto different surfaces to see how far it would roll. These are her results.

| Test Number | Distance rolled on | | |
|---|---|---|---|
| | Carpet | Wood | Plastic |
| 1 | 1·5 m | 4·7 m | 3·3 m |
| 2 | 1·3 m | 4·5 m | ? |
| 3 | 1·1 m | 5·0 m | 2·9 m |
| 4 | 1·7 m | 4·3 m | 3·5 m |
| 5 | 1·4 m | 4·8 m | 3·1 m |

**1** Find the mean distance the marble rolled on:

**a)** carpet **b)** wood.

**2** The mean distance rolled on plastic was 3·24 m. Find the missing result.

**3** The monthly rainfall recorded in millimetres in one year in Jerusalem.

| J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 110 | 80 | 20 | 10 | 0 | 0 | 0 | 0 | 10 | 60 | ? |

Including the missing December total, the mean rainfall for each month was 40 mm. Find the rainfall for December.

**4** Louis rolled a dice 100 times. The table shows his scores.

| Score | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Frequency | 14 | 20 | 18 | 15 | 16 | 17 |

Find the mean score.