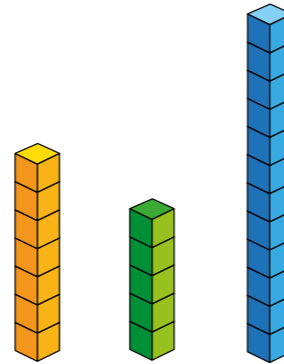# Solve problems involving the mean

1 Brett, Kim and Nijah have made some towers of cubes.

What is the mean number of cubes?

mean = **8** cubes
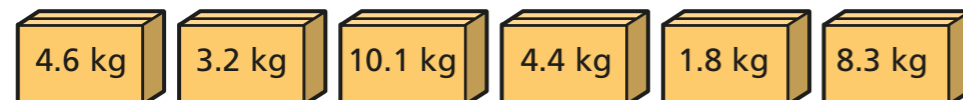
2 Find the mean of each set of numbers.

a) 6, 8, 2, 1, 6, 8, 4

mean = **5**

b) 14, 9, 10, 8, 2, 0, 7, 2

mean = **6·5**

3 Find the mean weight of the parcels.

| 4.6 kg | 3.2 kg | 10.1 kg | 4.4 kg | 1.8 kg | 8.3 kg |

mean = **5·4** kg

4 Find the mean attendance of the last 4 football matches.

Game	1	2	3	4
Attendance	12,360	10,900	6,480	15,410

mean = **11,287·5**

What do you think the units are for attendance?

5 Filip, Esther, Scott and Dani all have some cubes.

Filip has 4 cubes.

Esther has 9 cubes.

Scott has 5 cubes.

The mean number of cubes is 5

How many cubes must Dani have?

Dani has **2** cubes.

6 Find the missing number in each of the sets.

Write your answer on the blank card.

a)

| 4 | 2 | 5 | **1** |

mean = 3

b)

| 3.3 | 1.2 | 4.5 | 6.2 | **3·3** |

mean = 3.7

7 The temperatures at noon on the first 5 days of the week are:

19°C   23°C   24°C   16°C   14°C

a) Work out the mean temperature for the first 5 days.

19·2°C

On the next day, the temperature at noon is 15°C.

b) Predict whether the mean for all 6 days will be higher or lower than your answer for part a). _Decrease_

Explain your prediction.

c) Work out the mean average for the first 6 days.

18·5°C

8 The mean number of visitors to the zoo per week for the first 5 weeks of summer is 3,480

In the 6th week, 4,000 visitors go to the zoo.

Will the mean increase or decrease? _Increase_

Explain to a partner how you know.

9 **a)** Write a set of 5 numbers with a mean of 12

E.g.   10   11   12   13   14

b) Write a set of 4 different numbers with a mean of 4.2

E.g   4   4·1   4·3   4·4

c) Write a set of 3 different numbers with a mean of 8 and a range of 10

E.g.   4   6   14

Compare answers with a partner.

What strategies did you use?

10 The table shows the ages of 10 children at a bowling alley.

Age	Frequency
11	1
12	2
13	3
14	4

a) Use the table to write a list of all the children's ages.

11, 12, 12, 13, 13, 13, 14, 14, 14, 14

b) Calculate the mean age of the children at the bowling alley.

13

How can you find the mean without writing the list?