porting distances

onvert between units of length to solve problems using decimal notation
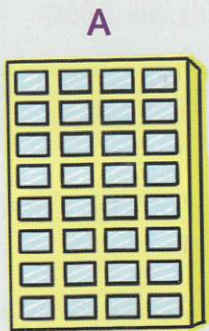
Example

1 floor = 3·6 m

4 floors × 3·6m = 14·4m

1 The cricket ground is overlooked by five blocks of flats. Work out the height of each block of flats.

A
1 floor = 3·2 m
8 floors
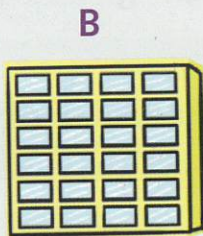
B
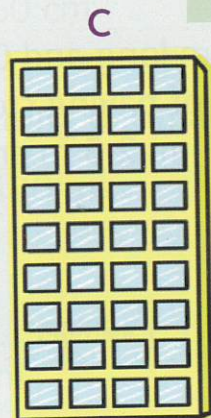1 floor = 2·8 m
6 floors

C
1 floor = 3·7 m
9 floors
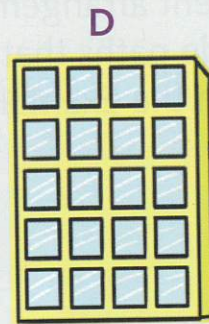
D
1 floor = 3·9 m
5 floors
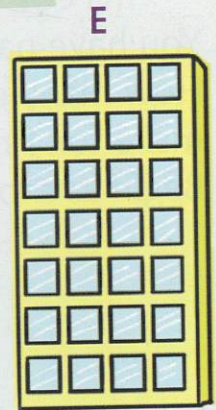
E
1 floor = 3·8 m
7 floors

2 How many metres taller is block C than:

   a block B?   **b** block D?

1 The distance round the sports ground running track is 420 m.
Colin runs nine times round the track in training.
How far does he run in kilometres?

2 Winston is a distance runner and he runs the same route every time.
In five evenings, he ran a total of 4·73 km. How long is his training route:

   a in kilometres?   **b** in metres?

3 Meg cycles 37·5 km from home to school and home again in one week.
How far is her house from her school?

4 The table shows the results of a long jump competition. By how many centimetres did Jordan beat each of his competitors?

Name	Jordan	Keira	Len	Mark	Naomi
Length of jump (m)	4·42	3·97	4·29	3·88	4·16

5 A cross-country cycle competition has races at six different venues in Britain. Find the total length of each race in kilometres.

	Venue	Length of one course lap (km)	Number of laps
a	Peak District	3·87	4
b	Borders	2·85	5
c	Lake District	4·19	4
d	North Wales	5·025	3
e	South Downs	2·64	5
f	East Anglia	3·78	4

Sheena has to cut lengths of ribbon from a 32 m roll for the medals that the winners will receive at the school's sports day. She has mislaid her measuring tape and does the following:

- unrolls the ribbon, folds it in half and cuts it
- folds each piece in half and cuts it
- folds each of the four pieces in half and cuts them.

a How many pieces of ribbon will she have if she continues to fold and cut the ribbon a further three times?

b What is the final length of each piece of ribbon?

Hint

Making a table similar to this one will help organise your answer.

Number of folds	0	1	2	3
Number of pieces of ribbon	1	2	4	
Length of each piece of ribbon (m)	32	16	8	