

Wednesday



End of unit check

1 Which column method completes this calculation?

Th	H	T	O
●●●●		●	●●●●●
●●	●●	●	●

□ + □ = □

- | |
|-----------|
| A |
| Th H T O |
| 3 1 0 5 |
| + 2 2 1 1 |
| 5 3 1 6 |
- | |
|-----------|
| B |
| Th H T O |
| 3 1 0 5 |
| - 2 2 1 1 |
| 8 0 4 |
- | |
|-----------|
| C |
| Th H T O |
| 3 0 1 5 |
| + 2 2 1 1 |
| 5 2 2 6 |
- | |
|-----------|
| D |
| Th H T O |
| 3 0 1 5 |
| + 2 2 1 1 |
| 5 0 2 6 |

2 Which subtraction requires only one exchange?

- | |
|-----------|
| A |
| Th H T O |
| 4 1 2 3 |
| - 1 9 9 8 |
| _____ |
- | |
|-----------|
| B |
| Th H T O |
| 4 9 9 8 |
| - 1 2 3 4 |
| _____ |
- | |
|-----------|
| C |
| Th H T O |
| 4 3 8 2 |
| - 1 2 8 9 |
| _____ |
- | |
|-----------|
| D |
| Th H T O |
| 4 9 1 8 |
| - 1 2 3 4 |
| _____ |

3 Which calculation gives the same answer as $5,000 - 997$?

- | | |
|----------|---------------|
| A | $5,001 - 996$ |
| B | $4,999 - 996$ |
- | | |
|----------|---------------|
| C | $4,999 - 998$ |
| D | $5,001 - 999$ |

4 Which calculation does not check $6,025 - 1,834 = 4,191$?

- | | |
|----------|-----------------|
| A | $6,025 - 4,191$ |
| B | $4,191 - 1,834$ |
- | | |
|----------|-----------------|
| C | $1,834 + 4,191$ |
| D | $4,191 + 1,834$ |

5 Bella scored 1,250 points and Ebo scored 425 points.

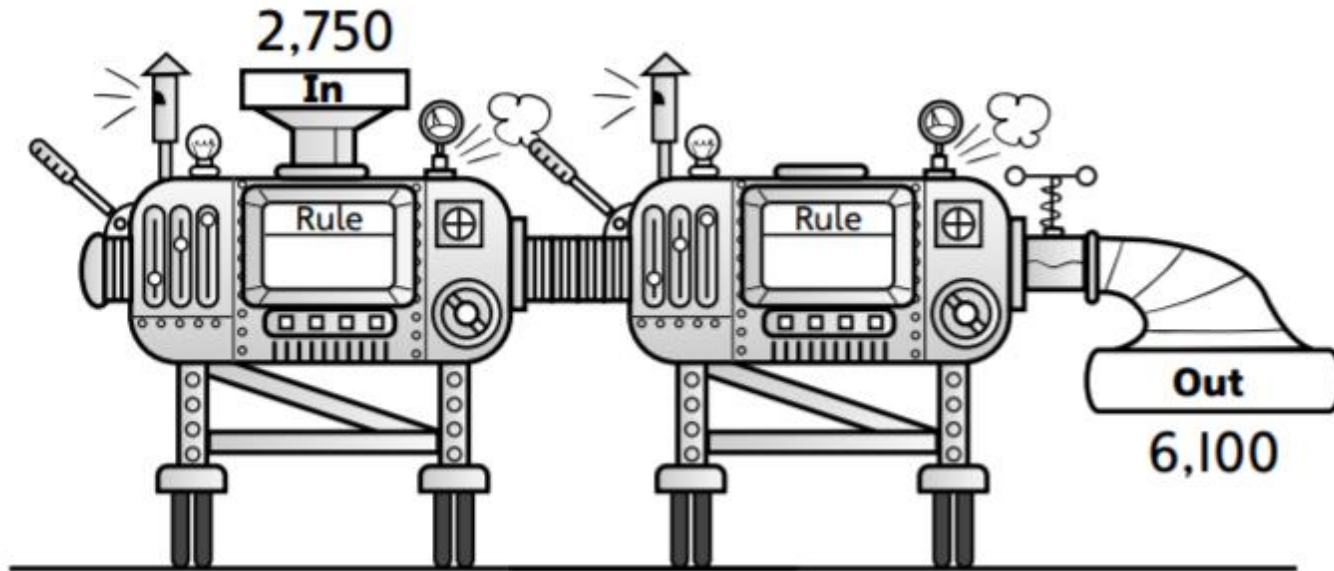
Which diagram shows the difference between Bella's score and Ebo's score?

- | |
|----------|
| A |
| 425 |
| ←————→ |
| 1,250 |
- | |
|----------|
| C |
| 1,250 |
| ←————→ |
| 425 |
- | |
|----------|
| B |
| 425 |
| 1,250 |
- | |
|----------|
| D |
| ? |
| 425 |
| 1,250 |

6 Sofia paid £2,500 for a holiday, and Amal paid £1,200 less than Sofia. How much did they pay altogether?

Power Up

What two rules might this machine be following?



If you put a smaller number into the machine, how would you change the rules so that the final number does not change?

I will use an inverse operation to help me.



Kilometres

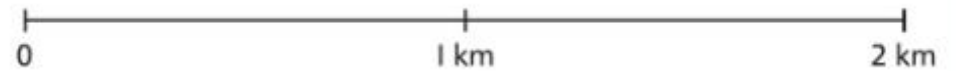
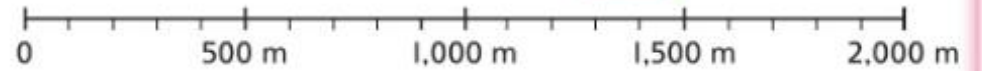
Discover



- How many **metres** away is the station?
- Complete a bar model to show your answer.

Share

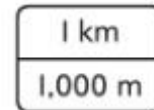
a) 1 **kilometre** is the same as 1,000 metres.



The station is 2,000 metres away.

b)

I made a smaller bar model and then a larger one to help!



You can write **m** for metres and **km** for kilometres.



$$1 \text{ km} + 1 \text{ km} = 2 \text{ km}$$

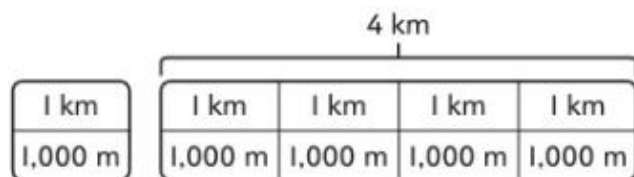
$$1,000 \text{ m} + 1,000 \text{ m} = 2,000 \text{ m}$$

$$2 \text{ km} = 2,000 \text{ m}$$

The bar model shows that the station is 2,000 metres away.

Think together

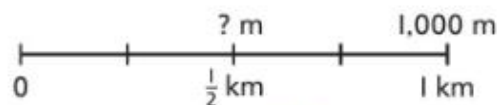
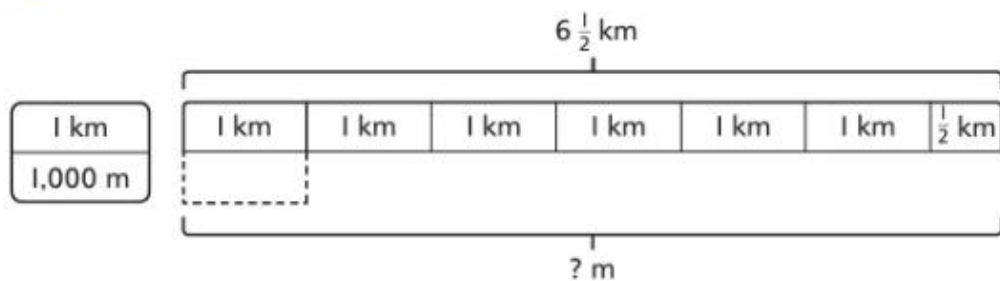
- 1 How many metres is it to the beach?



$$4 \times 1,000 \text{ m} = \square \text{ m}$$

The beach is \square metres away.

- 2 The nearest town is $6\frac{1}{2}$ km away. How many metres is this?



$\frac{1}{2}$ km is the same as \square m.

6 km is equivalent to \square m.

So the nearest town is \square m away.

Another way of saying 'the same as' is 'equivalent to'.



- 3 What are these distances in kilometres?

a) $4,000 \text{ m} = \square \text{ km}$

b) $4,100 \text{ m} = \square \text{ km } \square \text{ m}$

c) $4,500 \text{ m} = \square \text{ km } \square \text{ m} = \square \frac{\square}{\square} \text{ km}$

d) $4,250 \text{ m} = \square \text{ km } \square \text{ m} = \square \frac{\square}{\square} \text{ km}$

- 4 How would you rewrite this table to show metres instead of kilometres?

I used a number line to help me.

Village	Distance from here
Little Bampton	3 km
Battley	$\frac{3}{4}$ km
Kingsbridge	$7\frac{1}{2}$ km
Southwell	$1\frac{1}{4}$ km

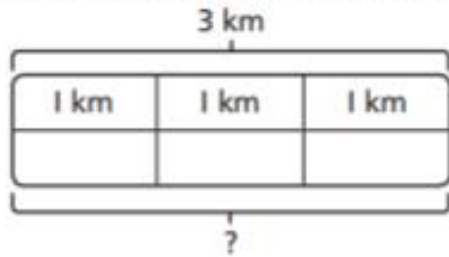


CHALLENGE

Kilometres

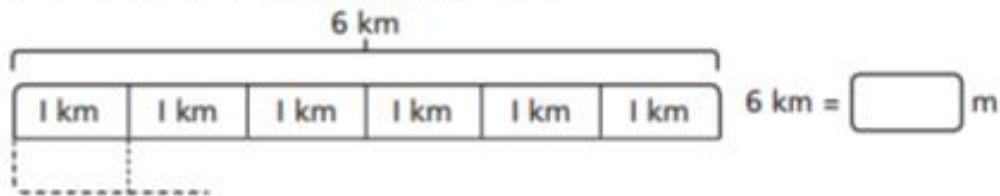
1 Complete the bar models to help you convert each distance.

a) How far away is Barwich in metres?



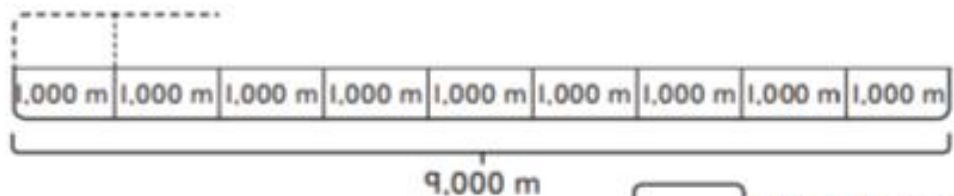
Barwich is metres away.

b) How far away is Littleton in metres?



Littleton is metres away.

c) How far away is Newville in kilometres?



Newville is kilometres away.

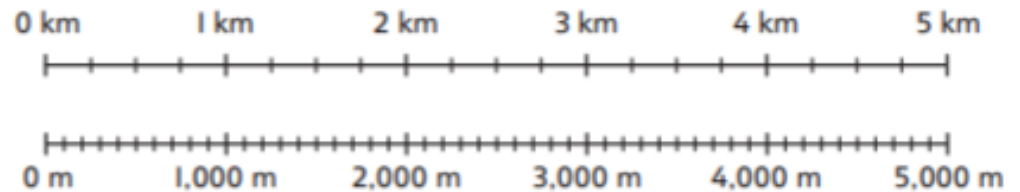
Barwich 3 km
Littleton 6 km
Newville 9,000 m

3 km = m

6 km = m

km = 9,000 m

2 Use these number lines to work out the equivalent distances.



a) 5 km = m

c) m = 3 $\frac{1}{2}$ km

b) 1,500 m = $\frac{\text{input type="text"}}{\text{input type="text"}}$ km

d) $\frac{\text{input type="text"}}{\text{input type="text"}}$ km = 1,250 m

3 Complete the equivalent distances.

a) 11 km = m

c) km = 8,000 m

b) 4 $\frac{1}{2}$ km = m

d) km = 10,500 m

4 The town council is planting flowers beside 9 $\frac{1}{2}$ km of roads.

This costs £1 per metre. How much will it cost altogether?

Show your working in the box below.

The flowers will cost £ .

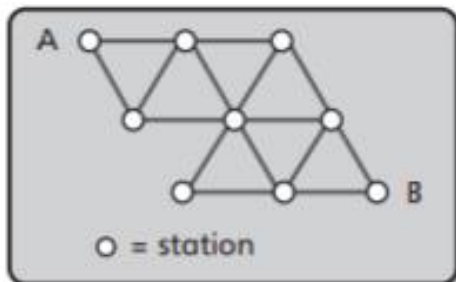
- 5 The distance between any two stations is 1,000 m.



Draw a route from A to B on the map.

Write down the number of kilometres the train travels on the route.

km



- 6 Write these distances in metres.

a) $\frac{1}{2}$ km = m d) $\frac{1}{4}$ km = m

b) $\frac{3}{4}$ km = m e) $\frac{1}{5}$ km = m

c) $\frac{2}{10}$ km = m f) $\frac{1}{10}$ km = m



CHALLENGE

I can use what I know about kilometres to work out fractions of kilometres in metres.

Reflect

$2,000 \text{ m} + 500 \text{ m} + 1 \text{ km} = \text{ km}$

Use what you have learnt to explain how you would work out the answer.

- _____
- _____
- _____
- _____

 **Power Up**

Complete the number sentences so that they balance.

$$430 + 659 = \square - 345$$

$$\square + 580 = 1200 - 445$$

$$880 - \square = 390 + 240 + 150$$

$$\square + 930 = 1,150 - \square$$

I think there is more than one way of balancing the last number sentence.



Perimeter of a rectangle 1



Discover

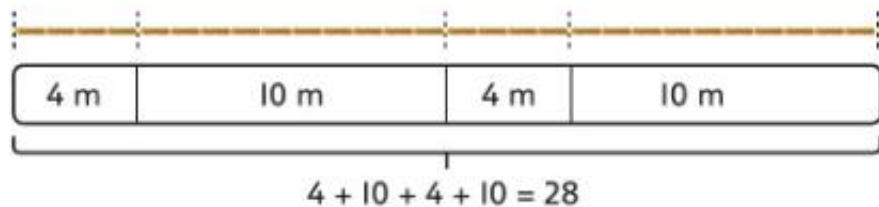
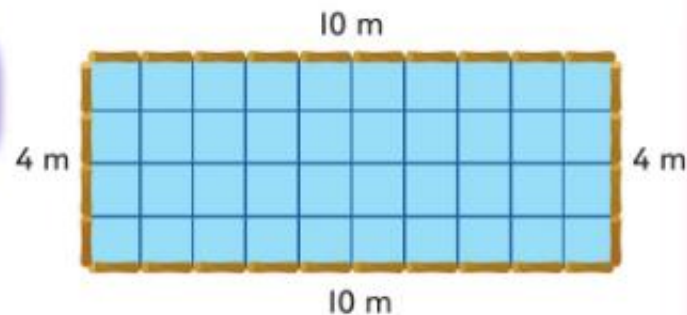


- How far will Amelia swim?
- Another pool is a square shape with a side length of 4 m. What is the distance around this pool?

Share

a) The distance around the outside of a shape is called its **perimeter**.

I used sticks to show the swimming pool. Each stick represents 1 metre.



The perimeter of the swimming pool is 28 m.

Amelia will swim 28 m.

I can work out the perimeter a different way. I added two lots of the length and then two lots of the width.

Length = 10 m Width = 4 m

Double 10 m = 20 m

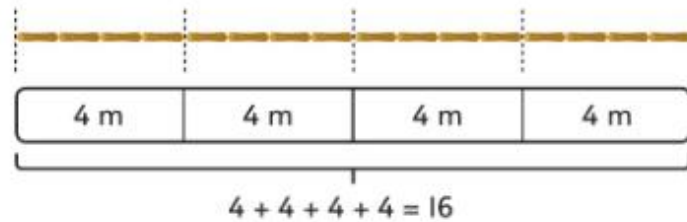
Double 4 m = 8 m

20 m + 8 m = 28 m

2

b) The length and width of a square are the same.

All four sides will be 4 m long.

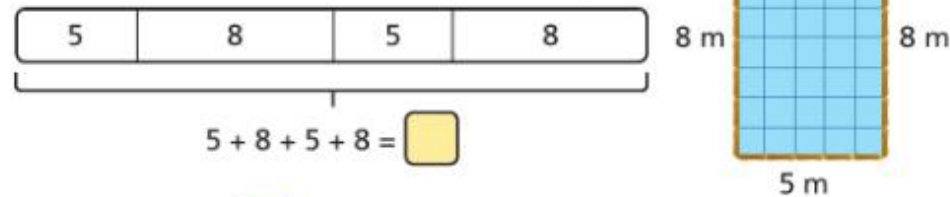


The perimeter of the square swimming pool is 16 m.

Think together

1 A swimming pool is 8 m long and 5 m wide.

What is the distance around this swimming pool?

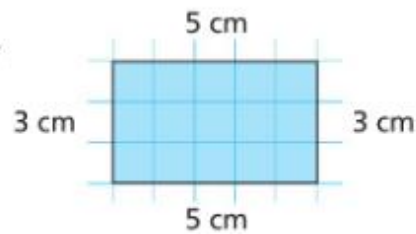


The perimeter is m.

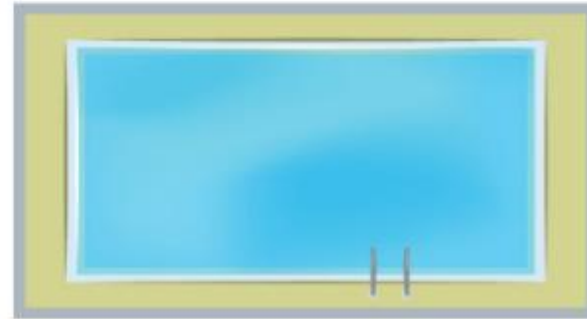
2 What is the perimeter of this rectangle?

$$5 + 3 + 5 + 3 = \square$$

The perimeter is cm.

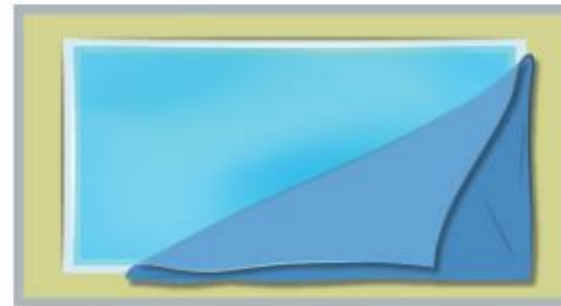


3 a) You have been asked to find the perimeter of this rectangular swimming pool in metres.



How many measurements do you need to work out the perimeter? Why?

b) Part of this swimming pool is covered over. Explain how you could still work out the perimeter.



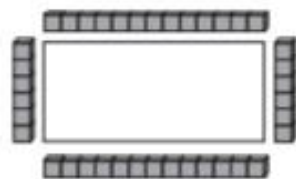
I wonder how many measurements I would need to know if the swimming pool was square.

CHALLENGE



Perimeter of a rectangle 1

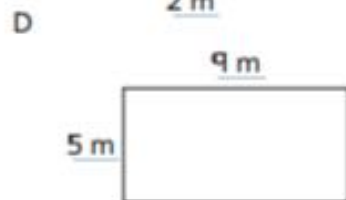
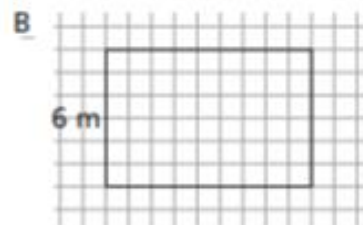
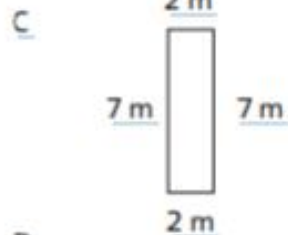
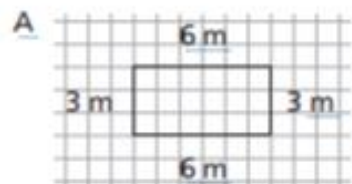
- 1 Liam draws a rectangle. He uses cubes to measure the length of each side. Each cube is 1 cm long.



What is the perimeter of the rectangle?

$$\square + \square + \square + \square = \square \text{ cm}$$

- 2 Find the perimeters of these rectangles.



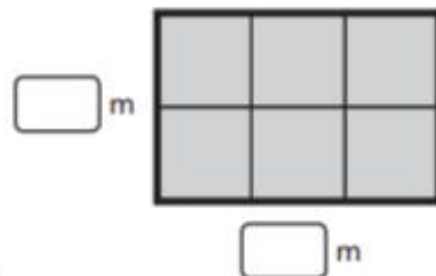
Rectangle	Perimeter
A	<input type="text"/> m
B	<input type="text"/> m
C	<input type="text"/> m
D	<input type="text"/> m

- 3 Tick all children who are showing perimeter.



- 4 Each square has a length of 5 m.

a) Label the length and the width of this swimming pool.



b) What is its perimeter? m

- 5 The school field is 50 m long and 23 m wide.

Jack runs the length of the field 3 times.

Sam runs around the perimeter once (1 time).

Who has run further?

_____ has run further.

Explain your answer.

- 6 A carpet company sells square rugs. Two sizes are shown.



CHALLENGE

- a) Complete the table.

Side length	5 m	6 m	7 m	<input type="text"/> m	<input type="text"/> m
Perimeter	<input type="text"/> m	<input type="text"/> m	<input type="text"/> m	32 m	40 m

- b) What do you notice about the perimeters of the rugs?
Why is this?

Reflect

A classroom is a rectangle. Its length is 6 m. Its width is 5 m.

- To work out the perimeter of this classroom, I would ...
- _____
- _____
- _____