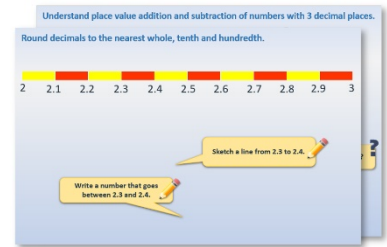


Week 11, Day 5

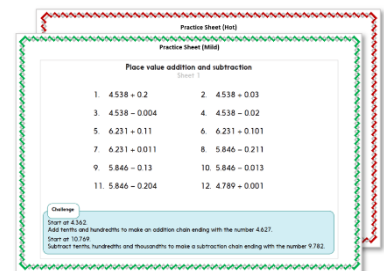
Investigate area and perimeter

Each day covers one maths topic. It should take you about 1 hour or just a little more.

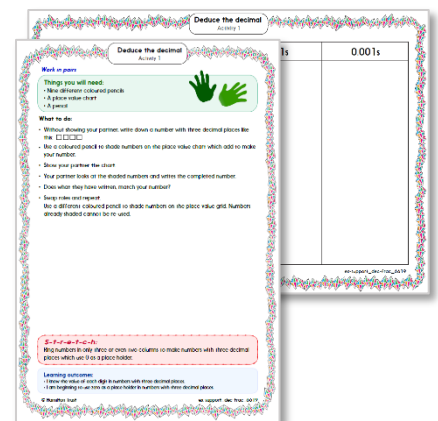
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



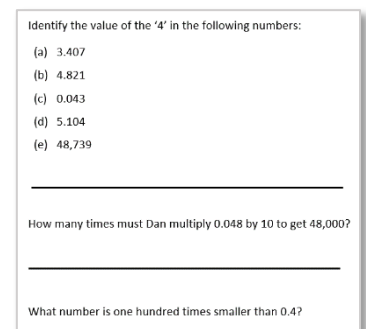
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**

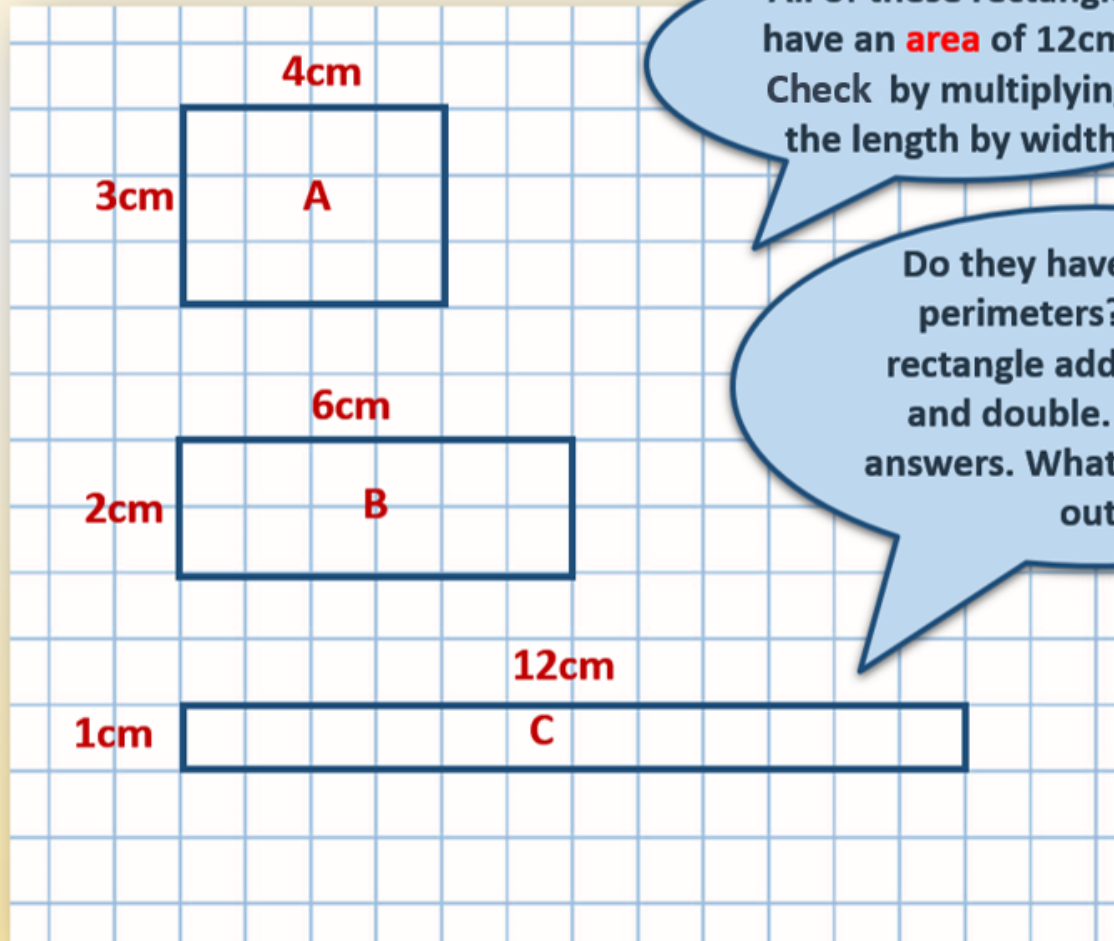


4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Investigate area and perimeter.



All of these rectangles have an **area** of 12cm^2 . Check by multiplying the length by width.

Do they have the same perimeters? For each rectangle add the 2 sides and double. Check the answers. What did you find out?

Answers
C 26cm
B 16cm
A 14cm

Learning Reminders

Investigate area and perimeter.

Length of side	Area	Perimeter
1cm	1cm ²	4cm
2cm	4cm ²	8cm
3cm	9cm ²	12cm
4cm	16cm ²	16cm
5cm	25cm ²	20cm

Kaya and Marley drew **squares** on cm squared paper and recorded the area and perimeter.

If they drew squares with sides 6cm and 7cm can you predict the area and the perimeter of each?

Hint 1:
The area of these
are all square
numbers!

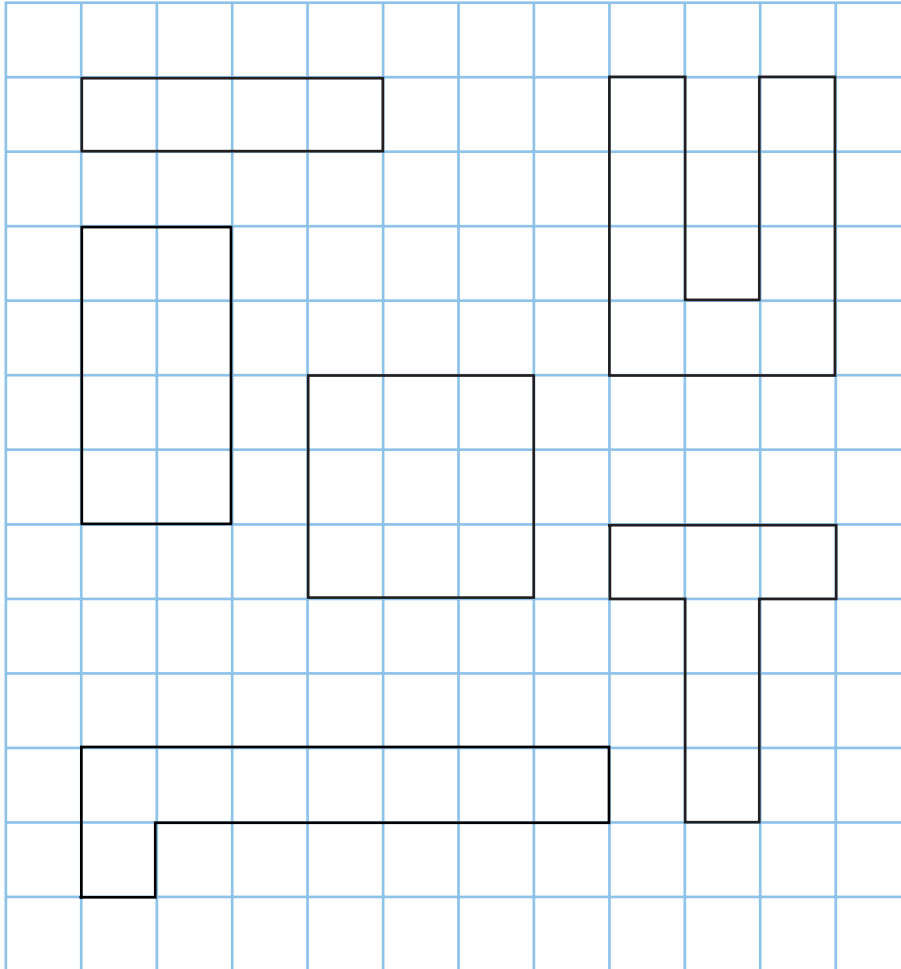
Hint 2:
The perimeters look
like the 4 times table!

Answers
6cm: The area would be 36cm²
and the perimeter 24cm.
7cm: The area would be 49cm² and
the perimeter 28cm.

Practice Sheet Mild

Area and perimeter

Label each shape with a letter A to F to describe its area and perimeter.



A Area: 9cm^2
Perimeter: 20cm

B Area: 8cm^2
Perimeter: 18cm

C Area: 4cm^2
Perimeter: 10cm

D Area: 9cm^2
Perimeter: 12cm

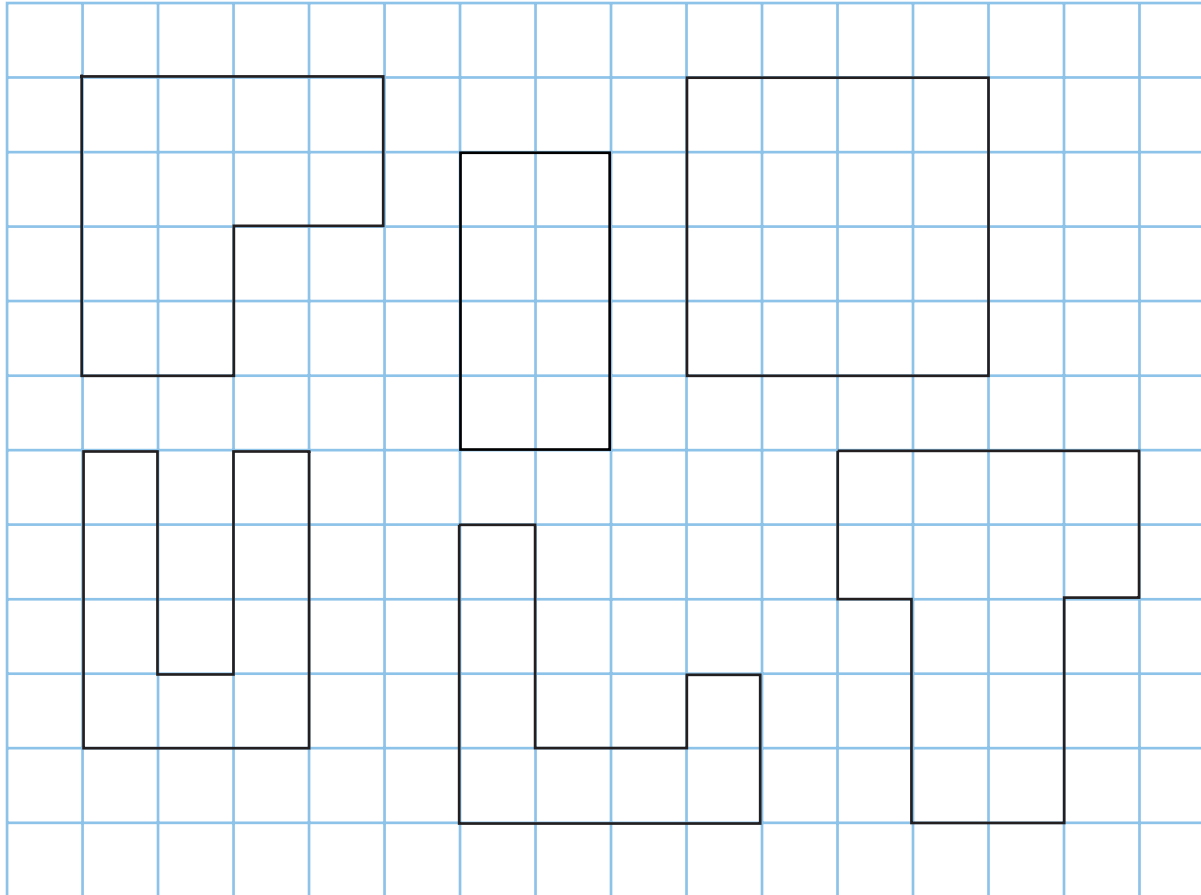
E Area: 6cm^2
Perimeter: 14cm

F Area: 8cm^2
Perimeter: 12cm

Practice Sheet Mild

Area and perimeter

Label each shape with a letter A to F to describe its area and perimeter.

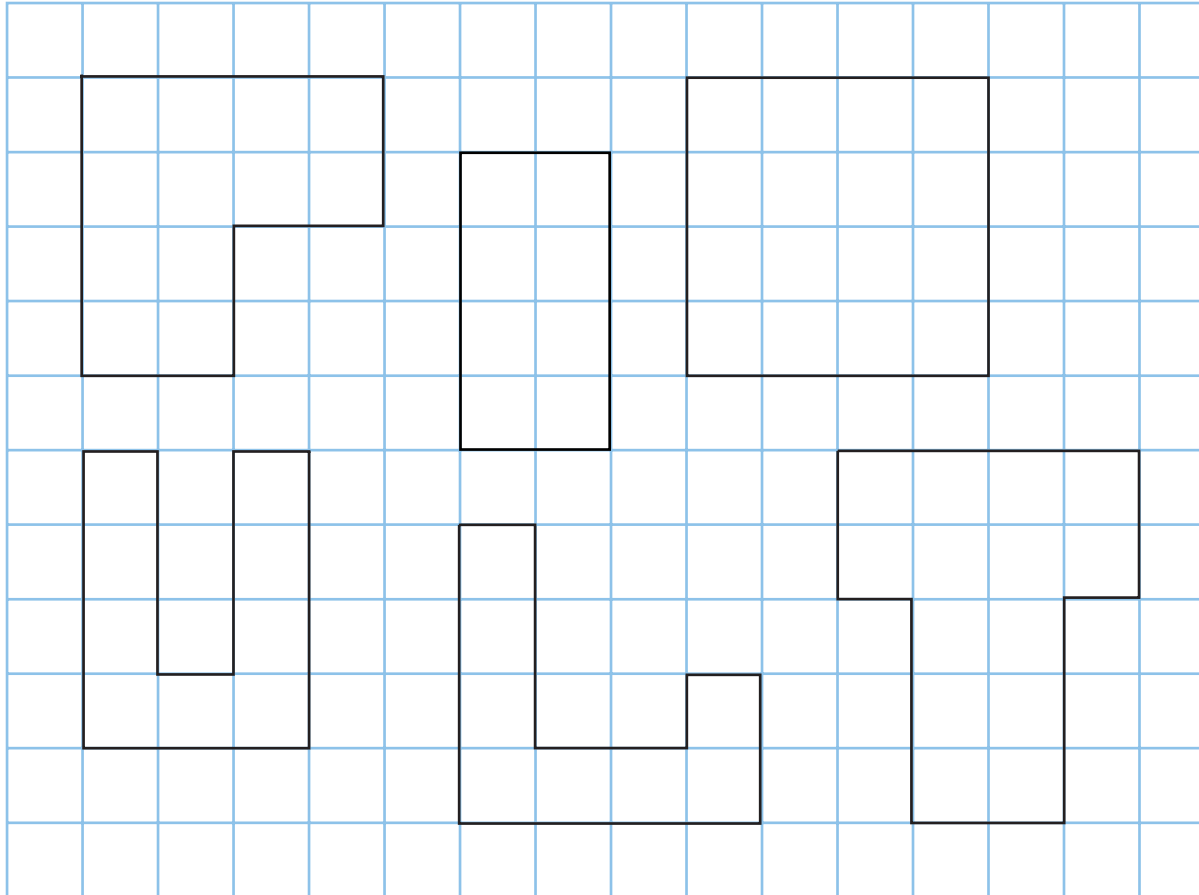


- A Area: 8cm^2
Perimeter: 18cm
- B Area: 12cm^2
Perimeter: 16cm
- C Area: 8cm^2
Perimeter: 12cm
- D Area: 14cm^2
Perimeter: 18cm
- E Area: 16cm^2
Perimeter: 16cm
- F Area: 9cm^2
Perimeter: 20cm

Practice Sheet Hot

Area and perimeter

Label each shape with a letter A to F to describe its area and perimeter.

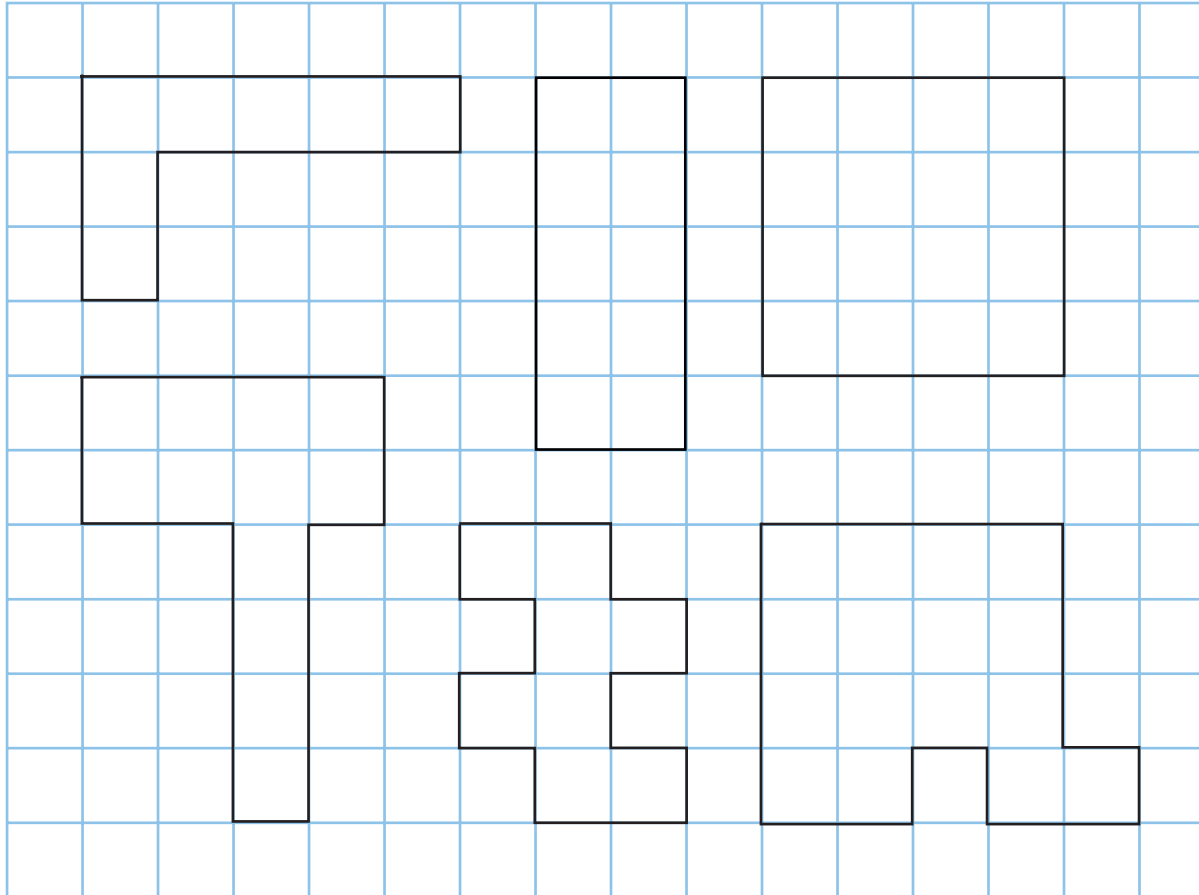


- A Area: 8cm^2
Perimeter: 18cm
- B Area: 12cm^2
Perimeter: 16cm
- C Area: 8cm^2
Perimeter: 12cm
- D Area: 14cm^2
Perimeter: 18cm
- E Area: 16cm^2
Perimeter: 16cm
- F Area: 9cm^2
Perimeter: 20cm

Practice Sheet Hot

Area and perimeter

Label each shape with a letter A to F to describe its area and perimeter.



A Area: 10cm^2
Perimeter: 14cm

B Area: 8cm^2
Perimeter: 18cm

C Area: 16cm^2
Perimeter: 20cm

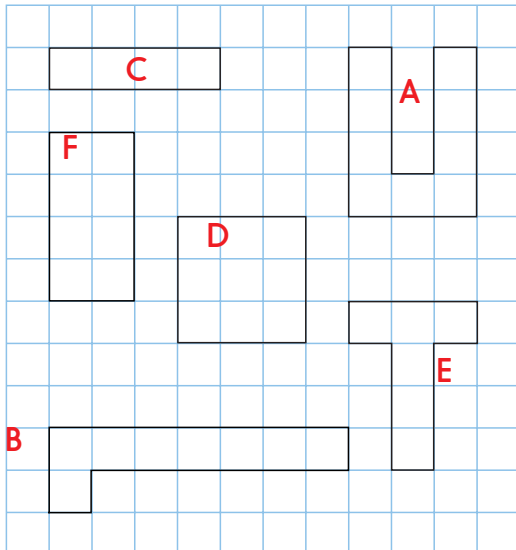
D Area: 16cm^2
Perimeter: 16cm

E Area: 12cm^2
Perimeter: 20cm

F Area: 7cm^2
Perimeter: 16cm

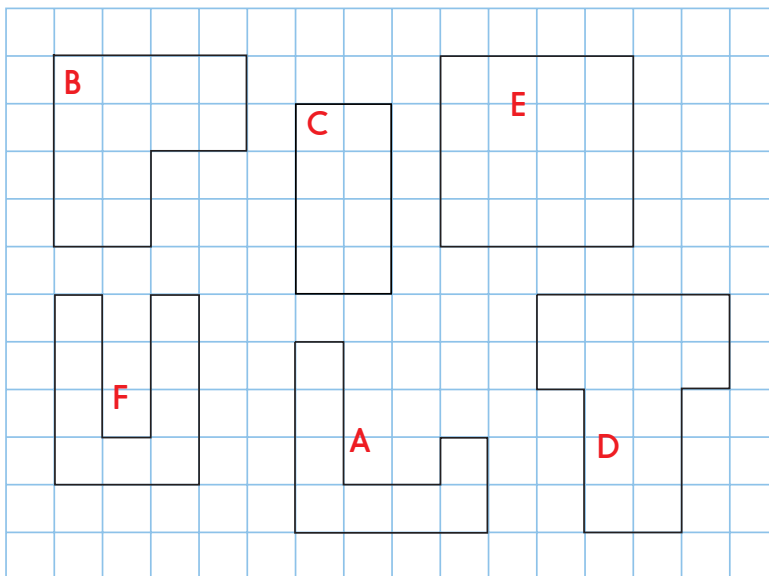
Practice Sheets Answers

Area and perimeter (mild)



- A Area: 9cm^2
Perimeter: 20cm
- B Area: 8cm^2
Perimeter: 18cm
- C Area: 4cm^2
Perimeter: 10cm
- D Area: 9cm^2
Perimeter: 12cm
- E Area: 6cm^2
Perimeter: 14cm
- F Area: 8cm^2
Perimeter: 12cm

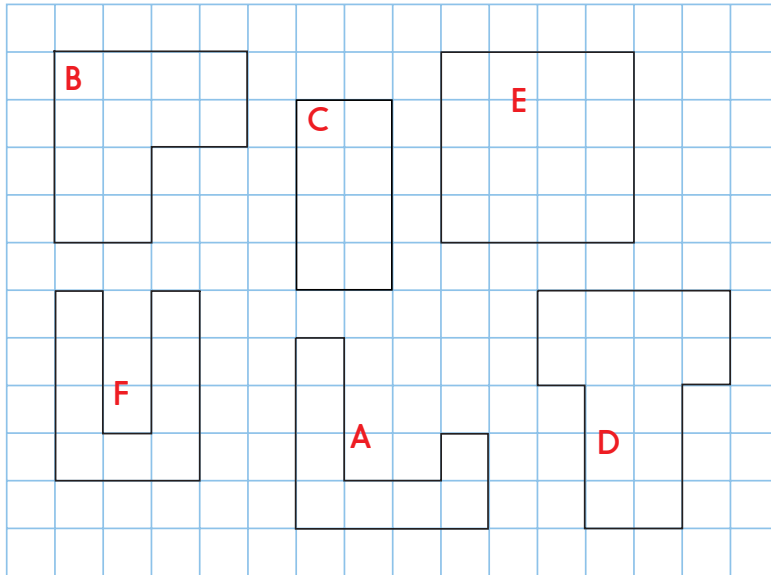
Area and perimeter (mild)



- A Area: 8cm^2
Perimeter: 18cm
- B Area: 12cm^2
Perimeter: 16cm
- C Area: 8cm^2
Perimeter: 12cm
- D Area: 14cm^2
Perimeter: 18cm
- E Area: 16cm^2
Perimeter: 16cm
- F Area: 9cm^2
Perimeter: 20cm

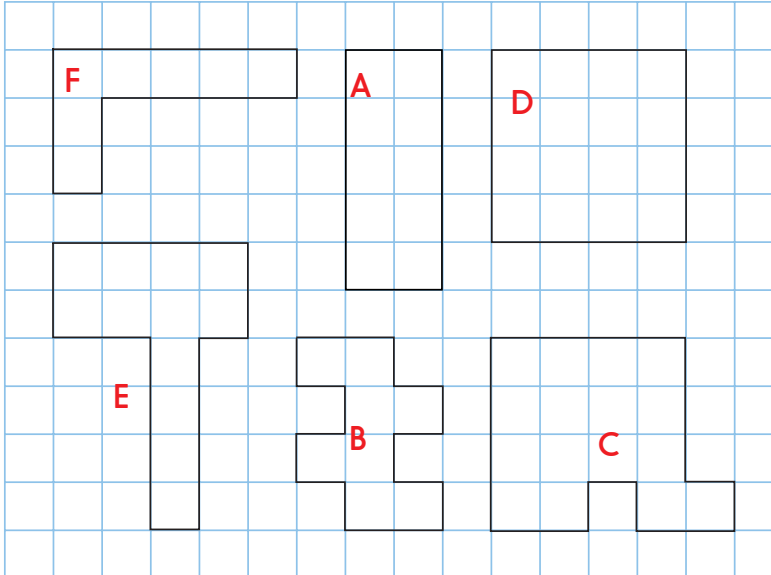
Practice Sheets Answers

Area and perimeter (hot)



- A Area: 8cm^2
Perimeter: 18cm
- B Area: 12cm^2
Perimeter: 16cm
- C Area: 8cm^2
Perimeter: 12cm
- D Area: 14cm^2
Perimeter: 18cm
- E Area: 16cm^2
Perimeter: 16cm
- F Area: 9cm^2
Perimeter: 20cm

Area and perimeter (hot)



- A Area: 10cm^2
Perimeter: 14cm
- B Area: 8cm^2
Perimeter: 18cm
- C Area: 16cm^2
Perimeter: 20cm
- D Area: 16cm^2
Perimeter: 16cm
- E Area: 12cm^2
Perimeter: 20cm
- F Area: 7cm^2
Perimeter: 16cm

A Bit Stuck?

Area and perimeter of squares

You will need:

- ruler and pencil
- cm^2 paper

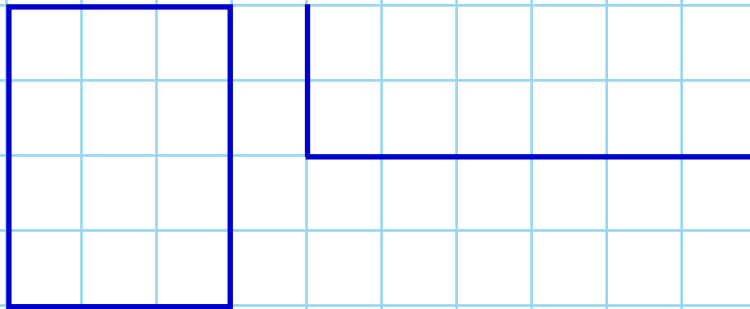
Accurately draw the following pairs of rectangles using the lines of the squared paper.

Find the area and perimeter of each rectangle.

Pair A

4cm by 3cm

2cm by 6cm



Pair B

4cm by 4cm

2cm by 8cm

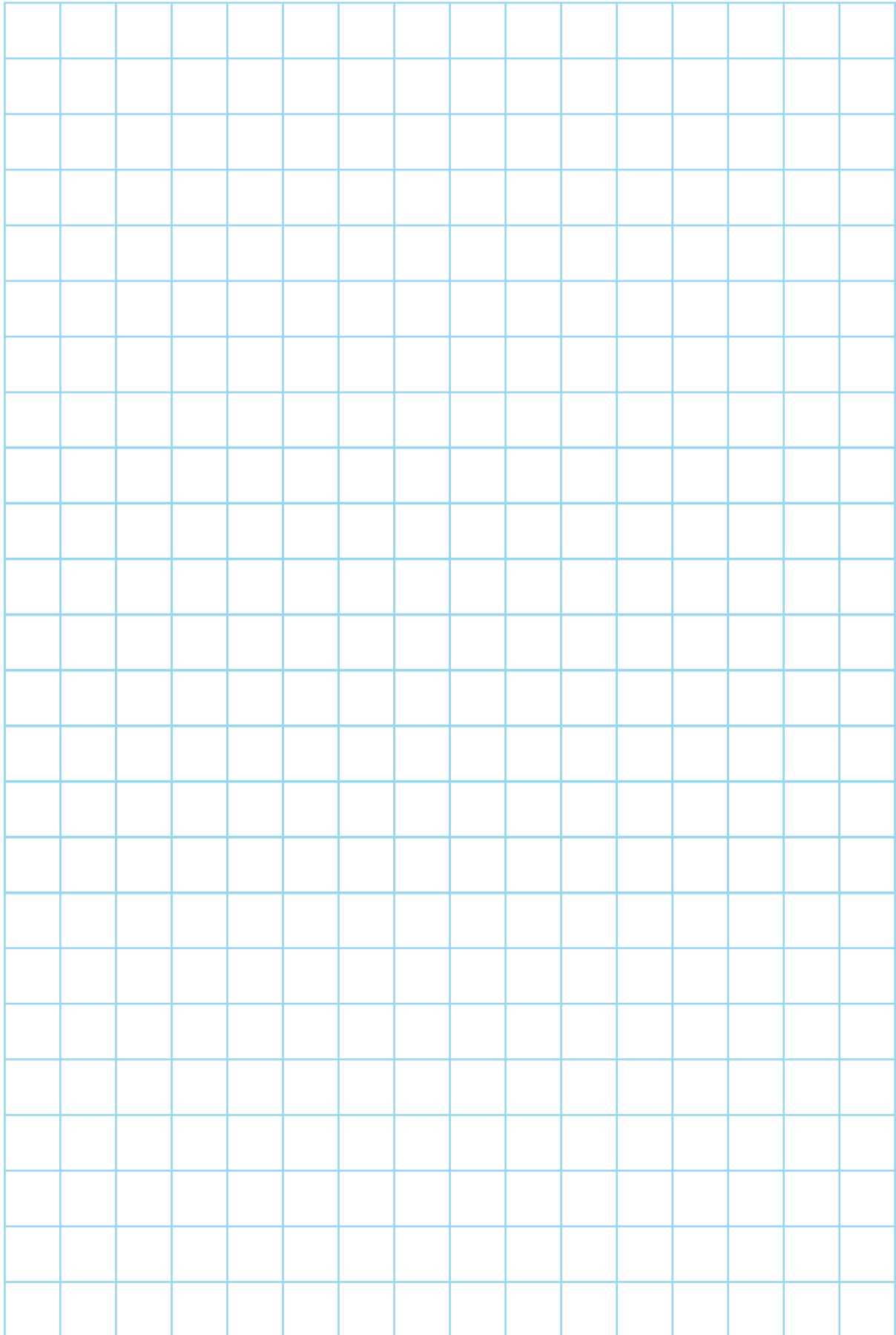
Pair C

3cm by 6cm

2cm by 9cm

Answers:
Pair A – Area of each 12cm^2 , perimeters 14cm and 16cm .
Pair B – Area of each 16cm^2 , perimeters 16cm and 20cm .
Pair C – Area of each 18cm^2 , perimeters 18cm and 22cm .

A Bit Stuck?
Area and perimeter of squares

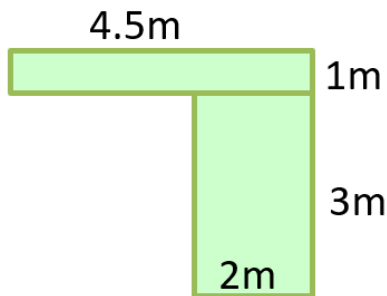


Check your understanding

Questions

The sketch below shows the plan of a strip of garden which is 4.5 metres long and 1 metre wide. A second strip runs at right angles to it and is 3 metres long and 2 metres wide.

How many metres of fence are required to fence it all in?



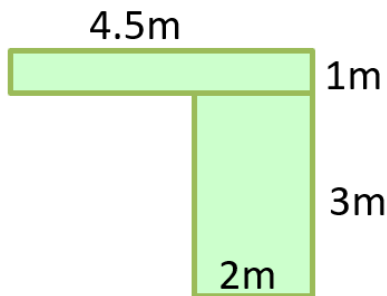
Draw a rectangle (side lengths a whole number of cm) with an area of 20cm^2 .
Now draw another rectangle with the *same area*, that has a *different perimeter*.

Check your understanding

Answers

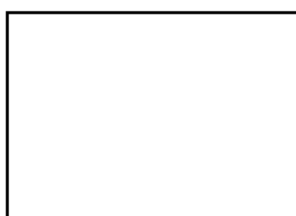
The sketch below shows the plan of a strip of garden which is 4.5 metres long and 1 metre wide. A second strip runs at right angles to it and is 3 metres long and 2 metres wide.

How many metres of fence are required to fence it all in?

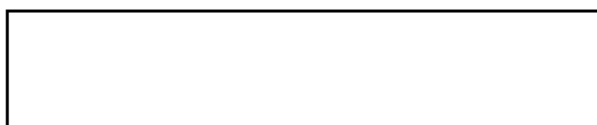


17m of fencing is needed. An answer of 21m suggests child has found and added the perimeters of each rectangle and failed to take account of the length where the strips join.

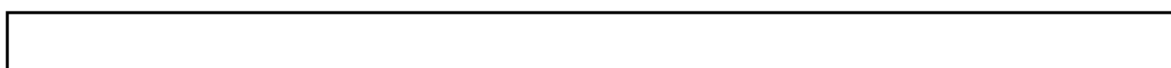
Draw a rectangle (side lengths a whole number of cm) with an area of 20cm^2 . Now draw another rectangle with the *same area*, that has a *different perimeter*. See diagrams below (NB not to scale) these each have an area of 20cm^2 . The perimeters are 18cm, 24cm and 42cm respectively.



4cm by 5cm



2cm by 10cm



1cm by 20cm