Week 13, Day 5
Estimate the area of irregular shapes
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.
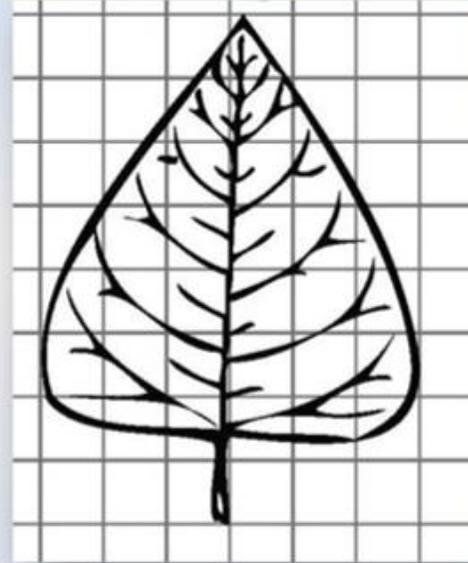Fold the page to hide the answers!

Learning Reminders

Estimate the area of irregular shapes

> We can find the area of an irregular shape by counting the squares it covers on the centimetre paper.

> First count the whole squares covered by the leaf.
> *You can tick off each square as you count it.*

> For the partial squares, we could count only those that are bigger than $^1/_2$ OR we could match one small partial square with one big one each time to make whole squares. Check off each partial square as you do this.
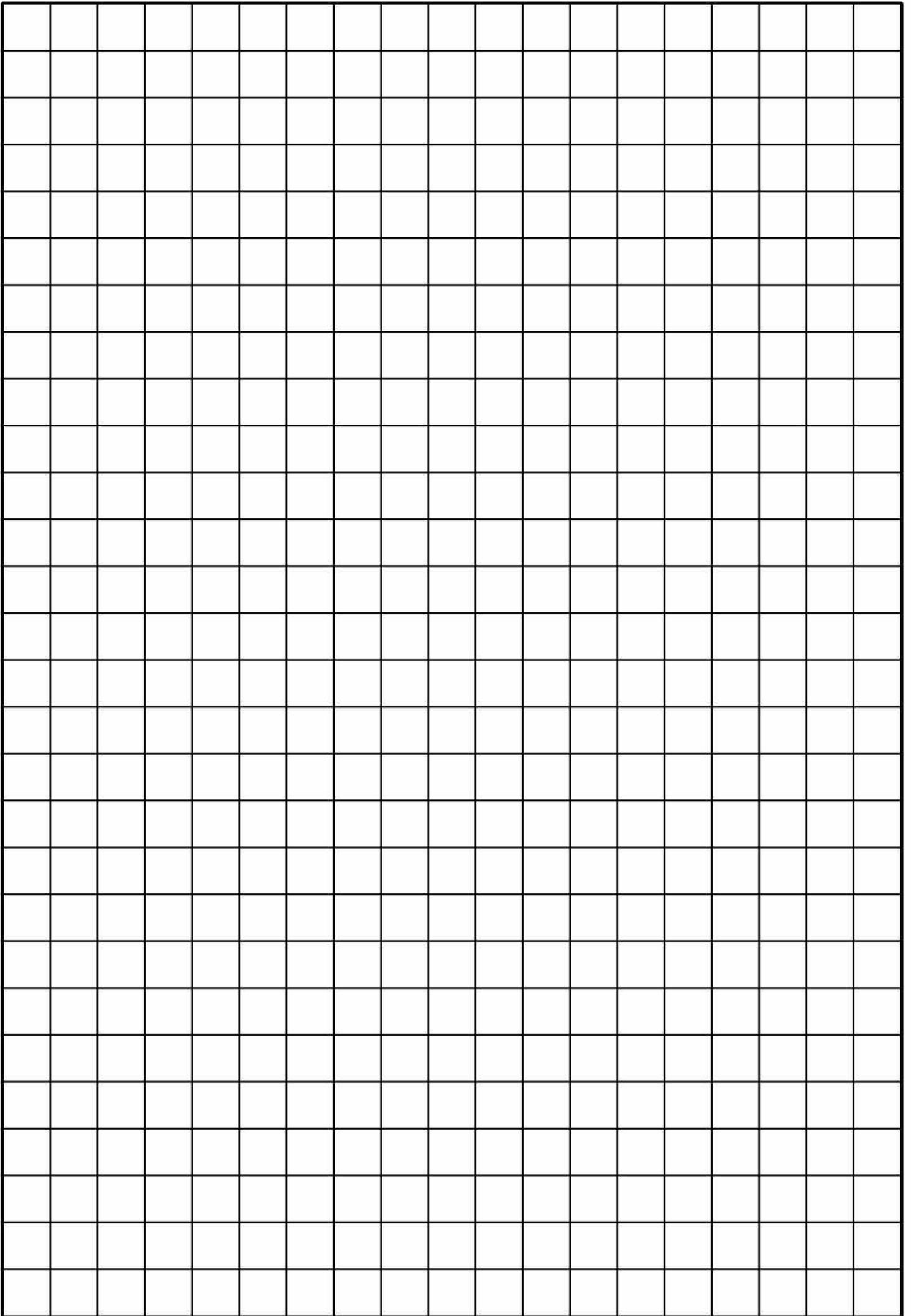
Around 26 cm²

Learning Reminders

Estimate the area of irregular shapes

> Draw around your own hand on a piece of cm² paper.
> What area do you do think you hand might cover?
> Now measure the area covered by your hand as we did for the leaf.
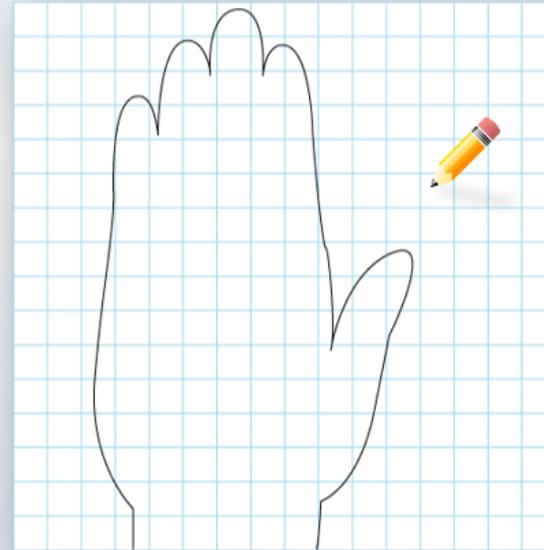
> Now do the same for someone else in your home; will their hand have a smaller or larger area than your own?
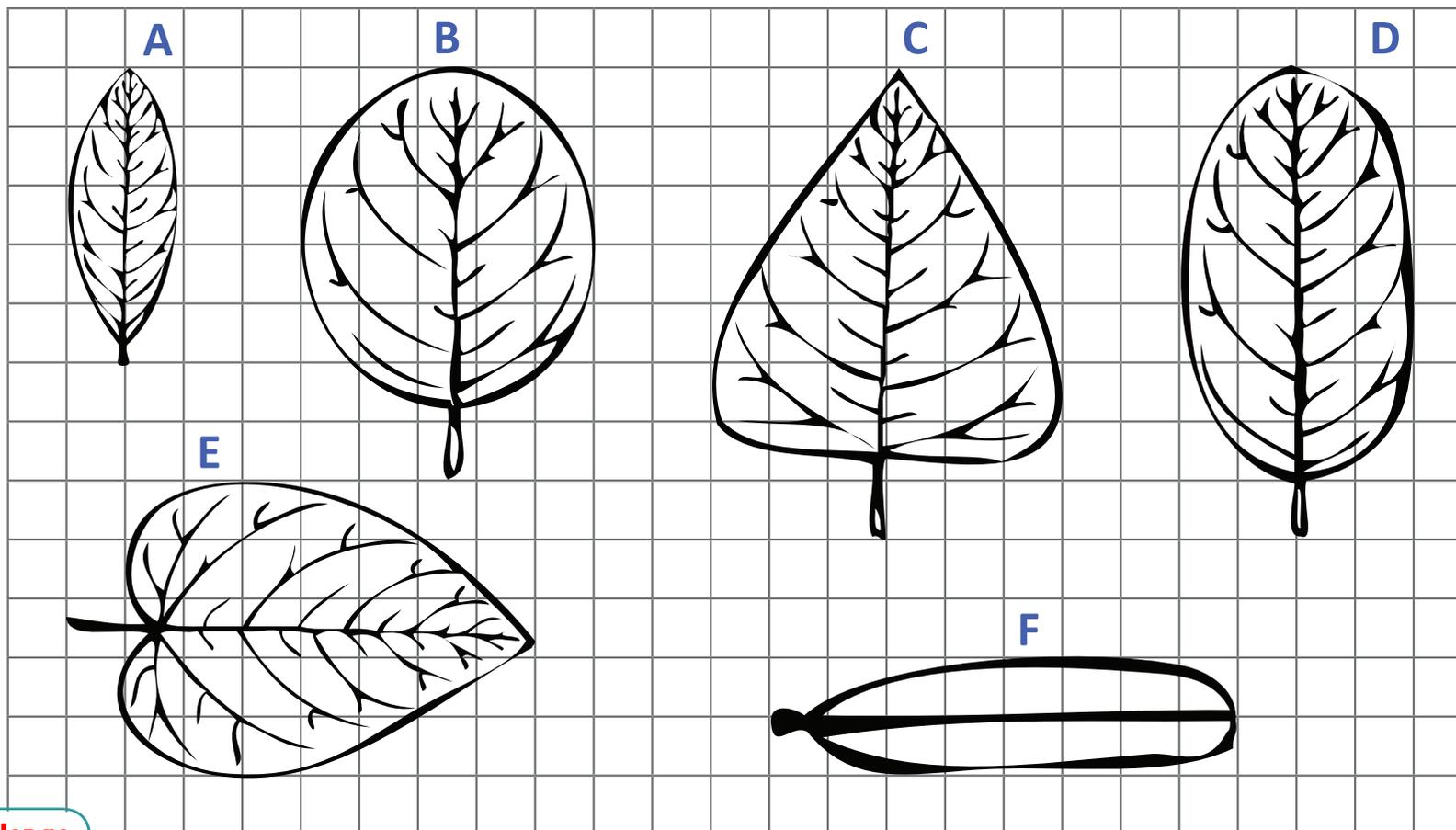
Estimating area

Which leaf shape do you think has the greatest area?
Write the letters of the leaves in order from which you think has the least area to the greatest areas.
Now count squares and half squares to find out the approximate area of each leaf shape.

A B C D

E

F

Hot challenge

Find four more irregularly shaped objects, e.g. a banana skin, a plant leaf, the base of a tea cup, your footprint, etc. Estimate the area of each. Draw around each and find its area. How accurate were your estimates?

Practice Sheet Answers

Estimating area
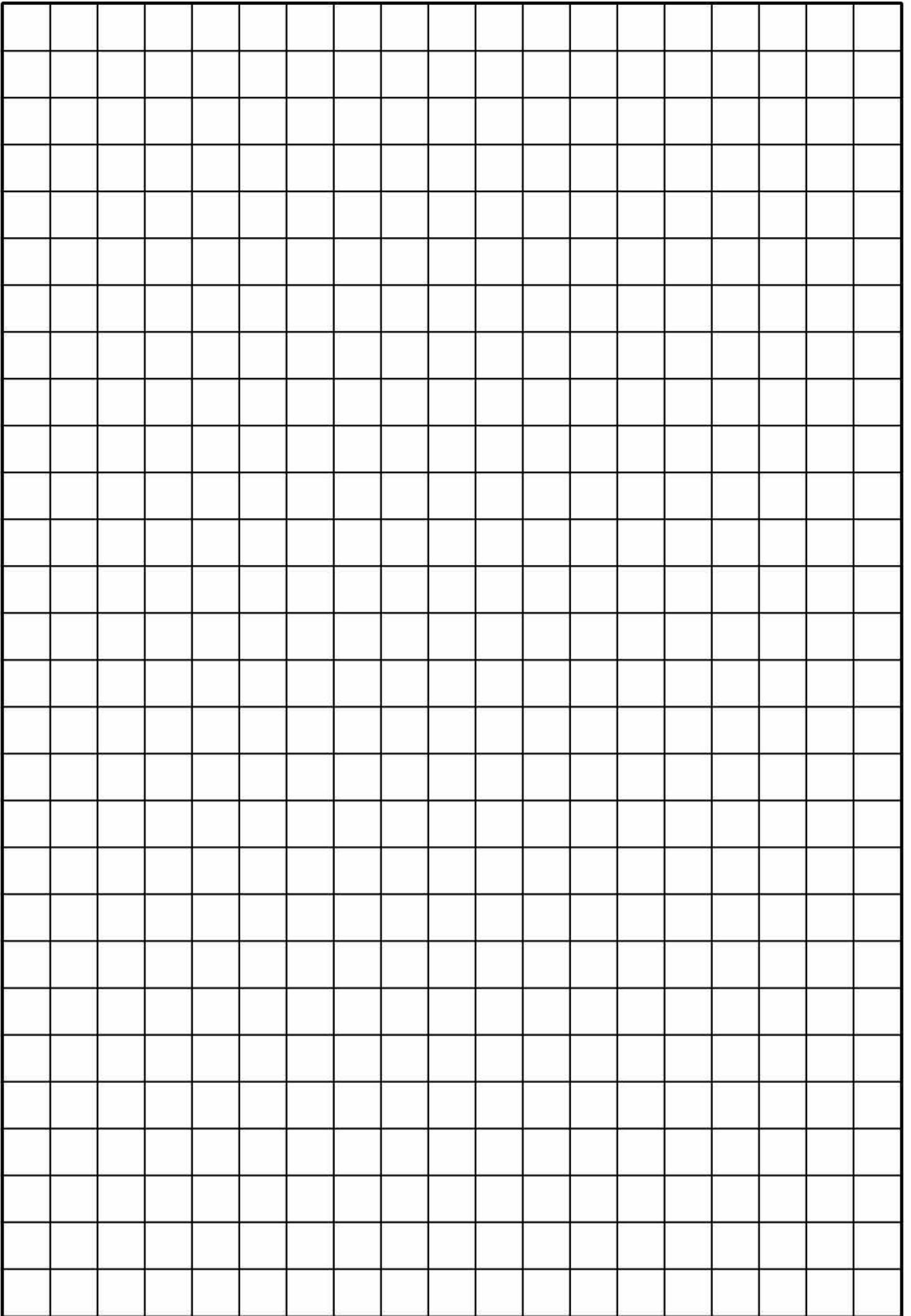
Leaf A is approximately 7 cm^2.
Leaf B is approximately 22 cm^2.
Leaf C is approximately 26 cm^2.
Leaf D is approximately 23 cm^2.
Leaf E is approximately 26 cm^2.
Leaf F is approximately 12 cm^2.

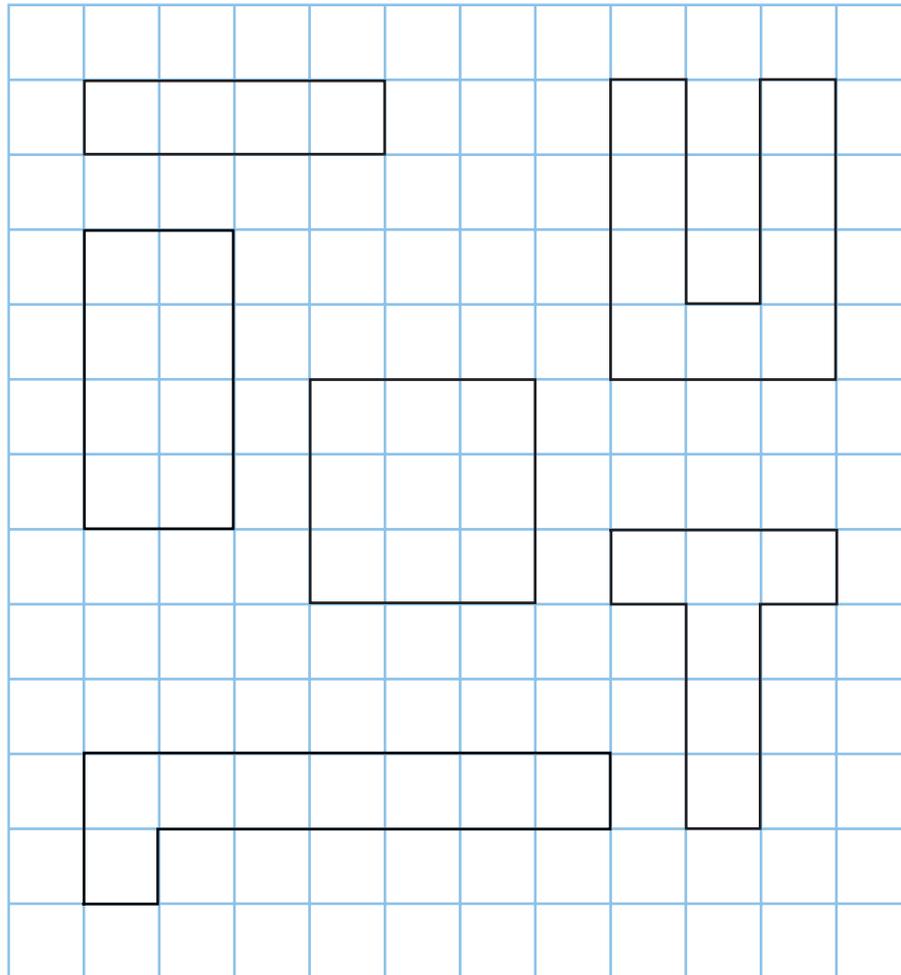# A Bit Stuck?
Area and perimeter

7cm length

3cm width

Perimeter is (7cm + 3cm) doubled
so, perimeter= 20cm
Area is 3cm x 7 = 21cm^2

Label each shape with a letter A to F to describe its area and perimeter.
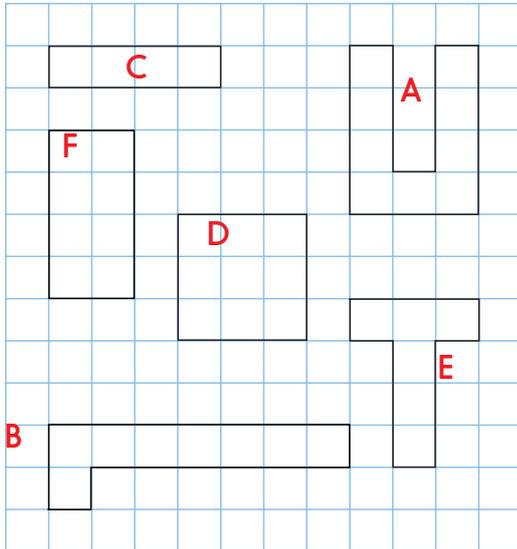
A   Area: 9cm^2
     Perimeter: 20cm

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

A Bit Stuck?
Answers

Area and perimeter

A   Area: 9cm²
     Perimeter: 20cm

B   Area: 8cm²
     Perimeter: 18cm

C   Area: 4cm²
     Perimeter: 10cm

D   Area: 9cm²
     Perimeter: 12cm

E   Area: 6cm²
     Perimeter: 14cm

F   Area: 8cm²
     Perimeter: 12cm

Check your understanding
Questions

Sam has two photos. One has an area of 49cm^2. The other has an area of 56cm^2.
A side length of one photo is equal to one of the sides of the other.
What are the side lengths of the two photos?

The area of a rectangle is 45 cm^2. If one side is 4cm longer than the other, what is the perimeter of the rectangle?

Mary has an oval table. She wants to find its area as accurately as she can.
Write 2 or 3 sentences explaining how she might do this.

Fold here to hide answers

Check your understanding
Answers

Sam has two photos. One has an area of 49cm^2. The other has an area of 56cm^2.
A side length of one photo is equal to one of the sides of the other.
What are the side lengths of the two photos?
7cm by 7cm and 7cm by 8cm

The area of a rectangle is 45cm^2. If one side is 4cm longer than the other, what is the perimeter of the rectangle? 28cm.

The sides must be 9cm and 5cm which give an area of 45 cm^2.
The perimeter is 28cm (9cm + 5cm + 9cm + 5cm).

Mary has an oval table. She wants to find its area as accurately as she can.
Write 2 or 3 sentences explaining how she might do this.

One way would be to use centimetre squared paper – cut out pieces that are 10 by 10cm, i.e. 100cm^2 (or larger pieces, but keep them all the same); see how many fit across the main part of the surface. Then cut out pieces to cover the curved parts and count as accurately as possible.