

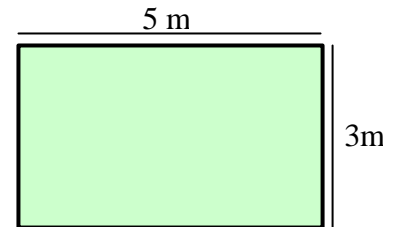
Perimeter and Area

Information Sheet

Perimeter

The **perimeter** of a shape is the **total length of its sides**.

The perimeter of this rectangular lawn = $5 + 3 + 5 + 3 = 16$ m



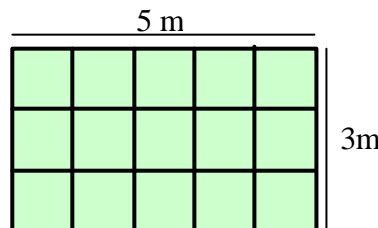
Perimeter of a rectangle $P = l + w + l + w$ where l is the length and w the width

This can also be written as $P = 2l + 2w$ or $P = 2(l + w)$

Area

Area measures the **surface** of something, usually in square metres (m^2), square centimetres (cm^2) or square millimetres (mm^2).

The area of the lawn is 15 m^2



Each square has an area of 1 m^2

Area of a rectangle = length \times width

This can be written as $A = lw$ where l is the length and w the width

Sometimes you can split shapes into two or more rectangles.

Example

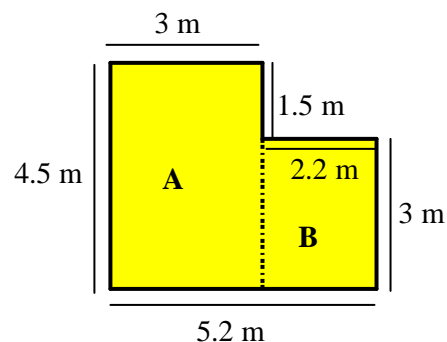
The perimeter of this L-shaped floor
= $3 + 1.5 + 2.2 + 3 + 5.2 + 4.5 = 19.4$ m

The area is split into two rectangles, A and B.

Area of A = $4.5 \times 3 = 13.5 \text{ m}^2$

Area of B = $3 \times 2.2 = 6.6 \text{ m}^2$

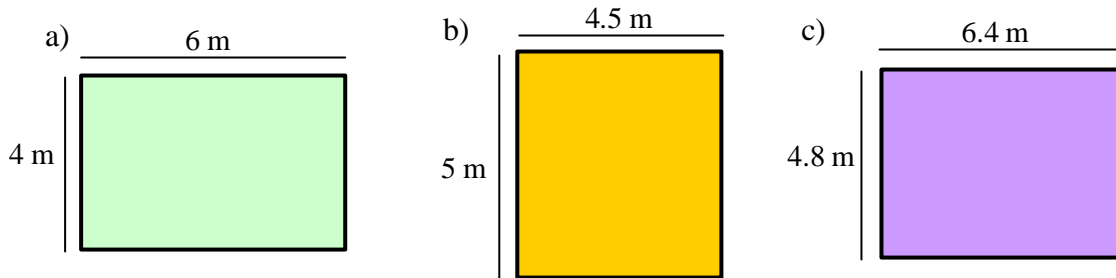
Total area = $13.5 + 6.6 = 20.1 \text{ m}^2$



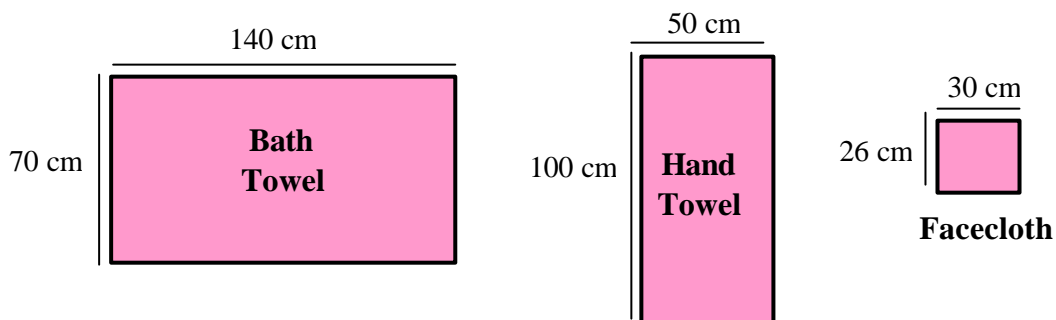
Perimeter and Area

Worksheet

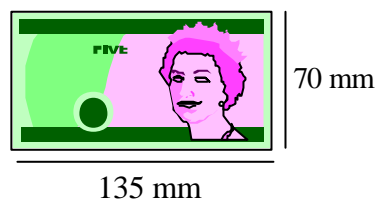
- 1 Each diagram below shows the dimensions of the floor in a room. Find the perimeter and area of each floor.



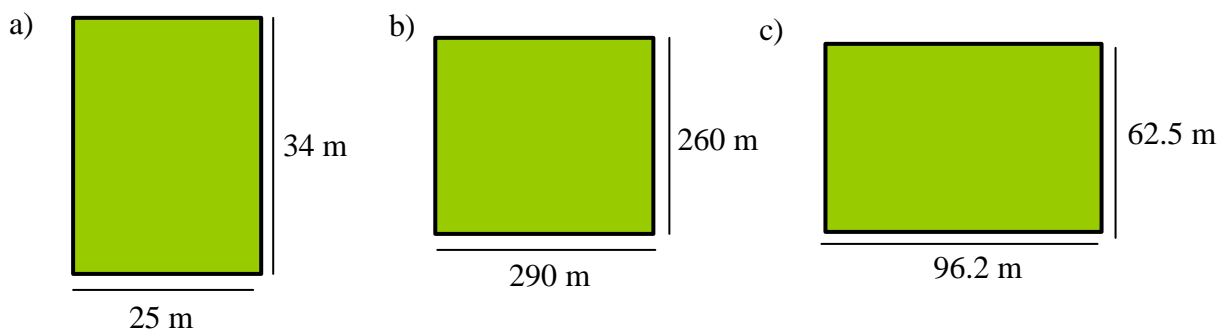
- 2 Find the perimeter and the area of each towel and the facecloth.



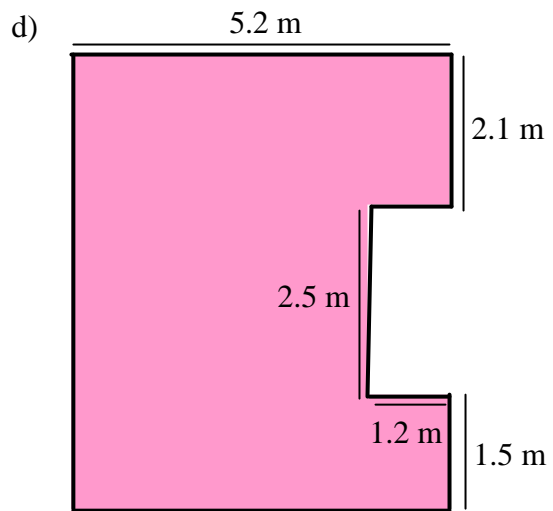
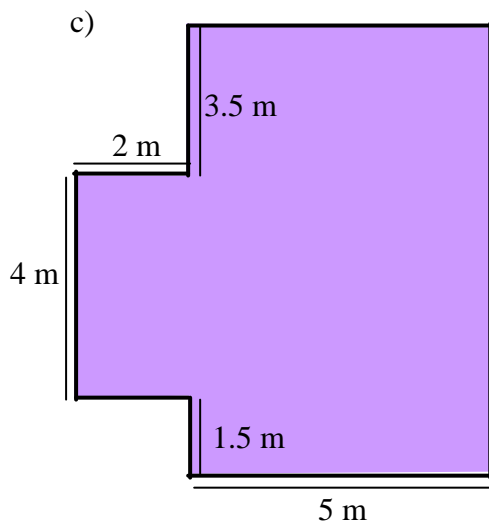
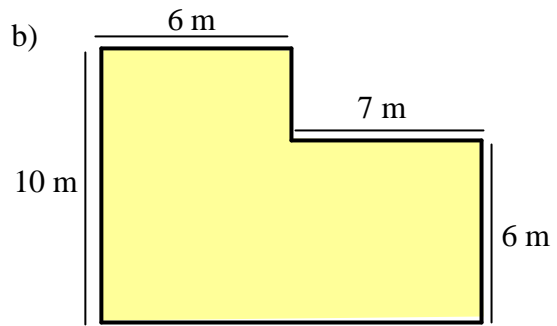
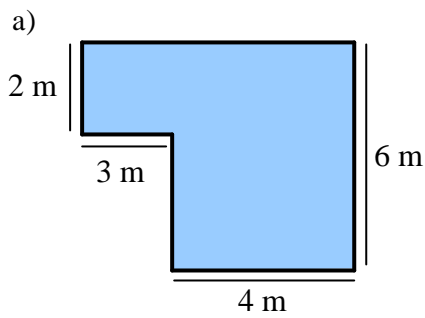
- 3 Find the perimeter and area of this £5 note.



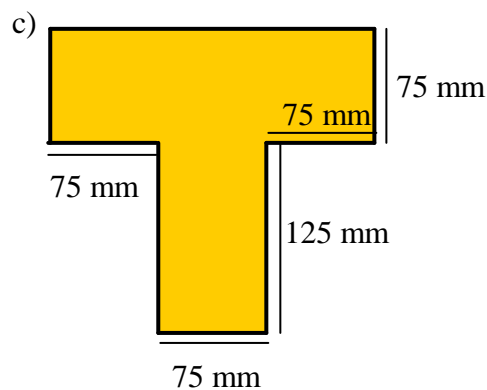
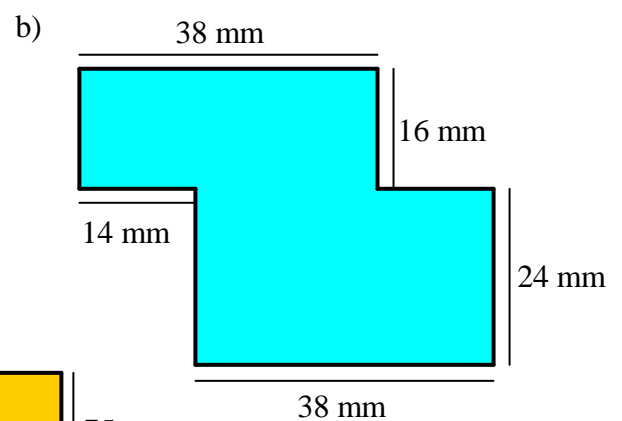
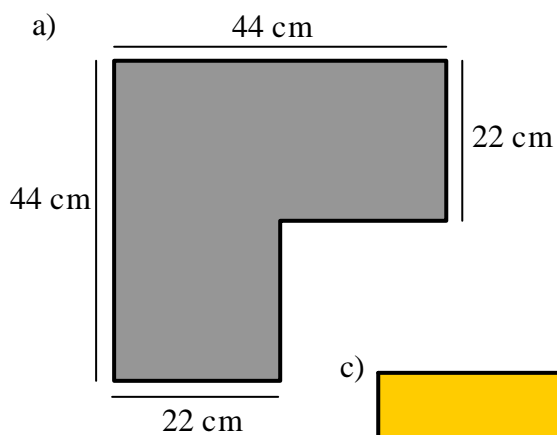
- 4 Calculate the perimeter and area of each field shown below.



5 Find the perimeter and area of the floor of each room in the diagrams below.



6 Find the perimeter and area of each shape.



Teacher Notes

Unit Foundation Level, Working in 2 and 3 dimensions

Notes

Page 1 is an information sheet that shows how to find the perimeter and area of rectangles and shapes made from rectangles. The first worksheet (Page 2) requires students to find the perimeter and area of single rectangles, whereas the second worksheet (Page 3) contains composite shapes. An accompanying Powerpoint presentation with the same name can be used as an introduction to this work.

Answers to worksheets

- 1 a) Perimeter = 20 m, Area = 24 m² b) Perimeter = 19 m, Area = 22.5 m²
c) Perimeter = 22.4 m, Area = 30.72 m²
- 2 **Bath Towel:** Perimeter = 420 cm, Area = 9800 cm²
Hand Towel: Perimeter = 300 cm, Area = 5000 cm²
Facecloth: Perimeter = 112 cm, Area = 780 cm²
- 3 Perimeter = 410 mm, Area = 9450 mm²
- 4 a) Perimeter = 118 m, Area = 850 m² b) Perimeter = 1100 m, Area = 75 400 m²
c) Perimeter = 317.4 m, Area = 6012.5 m²
- 5 a) Perimeter = 26 m, Area = 30 m² b) Perimeter = 46 m, Area = 102 m²
c) Perimeter = 32 m, Area = 53 m² d) Perimeter = 25 m, Area = 28.72 m²
- 6 a) Perimeter = 176 cm, Area = 1452 cm² b) Perimeter = 184 mm, Area = 1520 mm²
c) Perimeter = 850 mm, Area = 26 250 mm²

