

Varied Fluency

Step 2: Area and Perimeter

National Curriculum Objectives:

Mathematics Year 6: (6M7a) [Recognise that shapes with the same areas can have different perimeters and vice versa](#)

Mathematics Year 6: (6M7c) [Recognise when it is possible to use formulae for the area of shapes](#)

Differentiation:

Developing Questions to support calculating area and perimeter of rectangles and rectilinear shapes. Whole numbers only, using known multiplication facts within 12 x 12.

Expected Questions to support calculating area and perimeter of rectangles and rectilinear shapes. Includes up to 2-digit by 2-digit whole numbers and some conversion between units of measure. The formula for finding area and perimeter is used.

Greater Depth Questions to support calculating area and perimeter of rectangles and rectilinear shapes. Includes conversion between units of measure and decimal numbers up to 2 dp. The formula for finding area and perimeter is used.

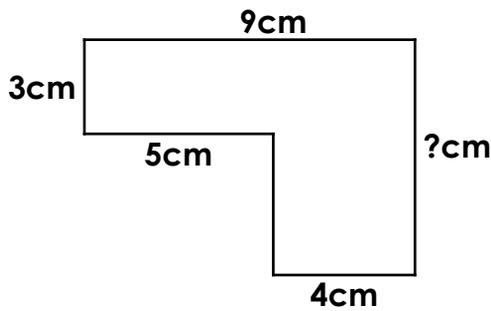
More [Year 6 Perimeter, Area and Volume](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Area and Perimeter

Area and Perimeter

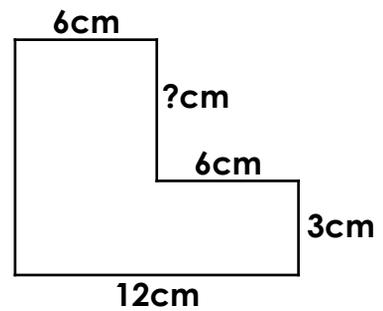
1a. The area of this shape is 47cm^2 . Work out the missing length.



Not to scale

VF

1b. The area of this shape is 90cm^2 . Work out the missing length.



Not to scale

VF

2a. Solve the word problem below.

A rectangle-shaped classroom measures 12ft by 4ft. What is the area of the classroom?



VF

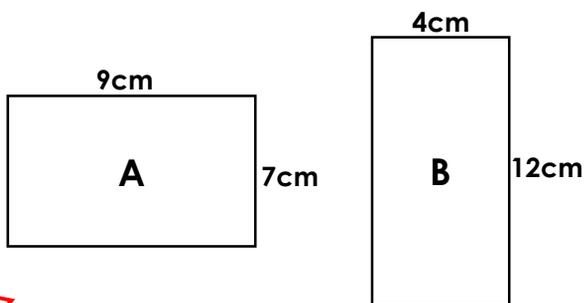
2b. Solve the word problem.

A rectangle-shaped bedroom measures 12m by 8m. What is the area of the bedroom?



VF

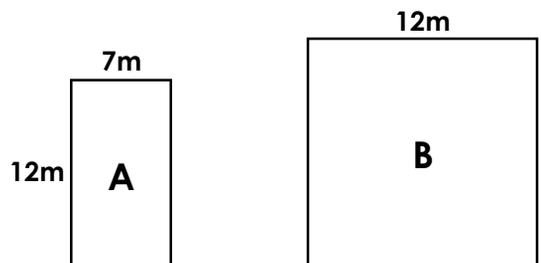
3a. Calculate the area and the perimeter of the shapes below.



Not to scale

VF

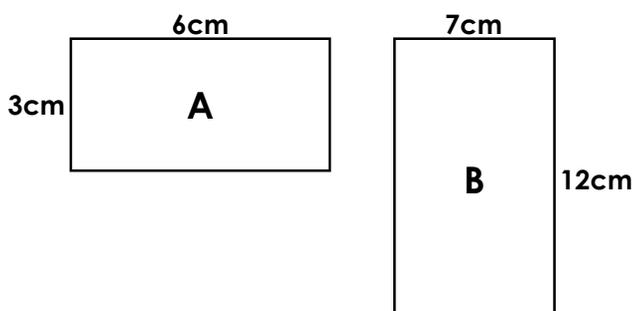
3b. Calculate the area and the perimeter of the shapes below.



Not to scale

VF

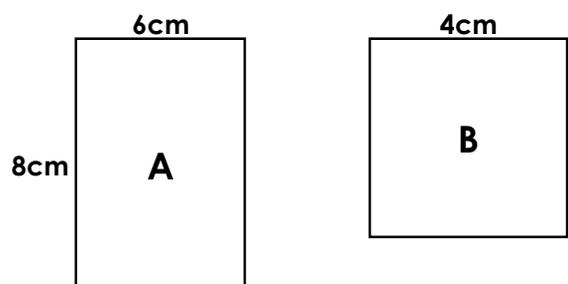
4a. Which shape has an area and a perimeter that equal the same number?



Not to scale

VF

4b. Which shape has an area and a perimeter that equal the same number?

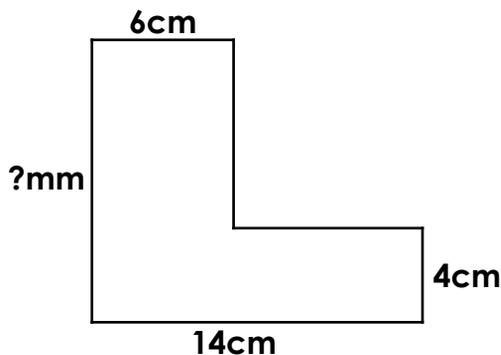


Not to scale

VF

Area and Perimeter

5a. The area of this shape is 92cm^2 .
Work out the missing length.

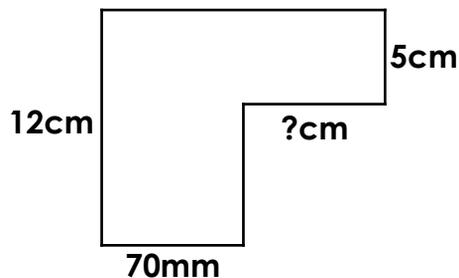


Not to scale

VF

Area and Perimeter

5b. The area of this shape is 114cm^2 .
Work out the missing length.



Not to scale

VF

6a. Solve the word problem below.

A garden measures 15ft by 24ft.
What is the area of the garden?

Use the formula $a = w \times l$ to write your answer.



VF

6b. Solve the word problem.

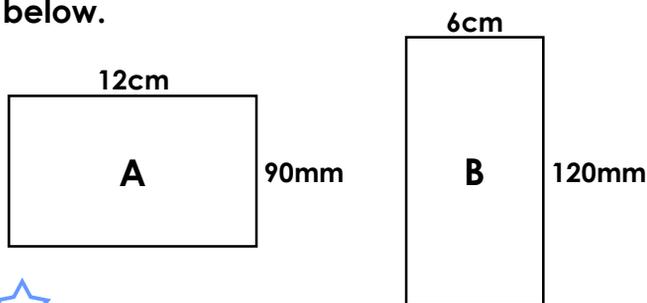
A shop floor measures 23m by 19m. What is the area of the shop?

Use the formula $a = w \times l$ to write your answer.



VF

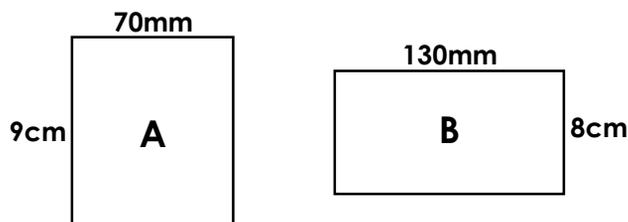
7a. Using the correct formulae, calculate the area and the perimeter of the shapes below.



Not to scale

VF

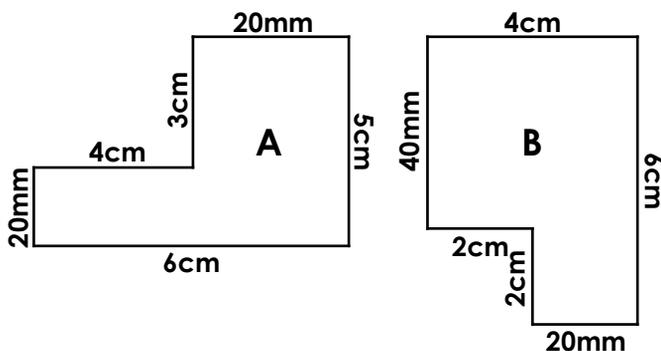
7b. Using the correct formulae, calculate the area and the perimeter of the shapes below.



Not to scale

VF

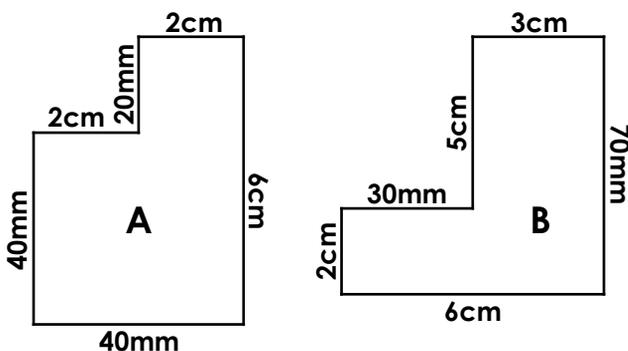
8a. Which shape has an area and a perimeter that equal the same number?



Not to scale

VF

8b. Which shape has an area and a perimeter that equal the same number?

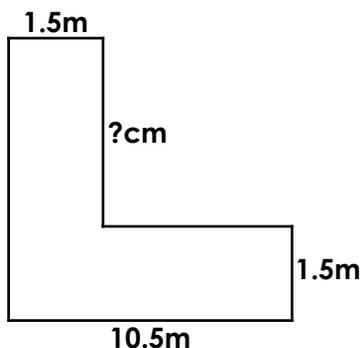


Not to scale

VF

Area and Perimeter

9a. The area of this shape is 21m^2 . Work out the missing length.

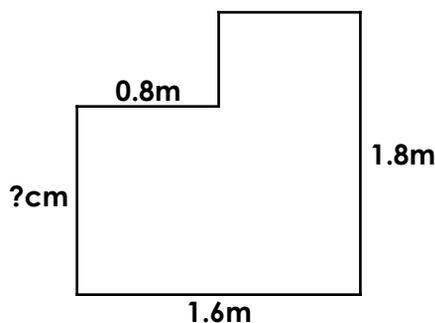


Not to scale

VF

Area and Perimeter

9b. The area of this shape is 2.4m^2 . Work out the missing length.



Not to scale

VF

10a. Solve the word problem below.

A garden measures 18m by 350cm . What is the area of the garden?

Use the formula $a = w \times l$ to write your answer.



VF

10b. Solve the word problem.

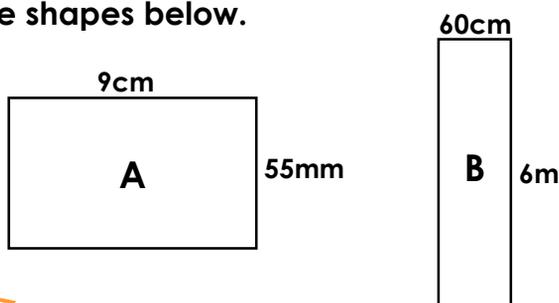
A field measures 19m by 550cm . What is the area of the field?

Use the formula $a = w \times l$ to write your answer.



VF

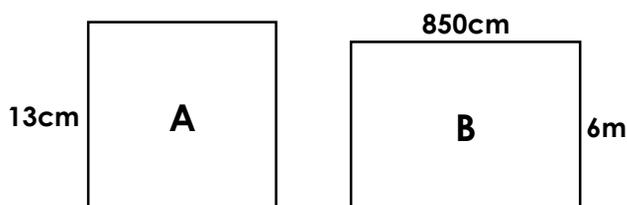
11a. Using the correct formulae, calculate the area and the perimeter of the shapes below.



Not to scale

VF

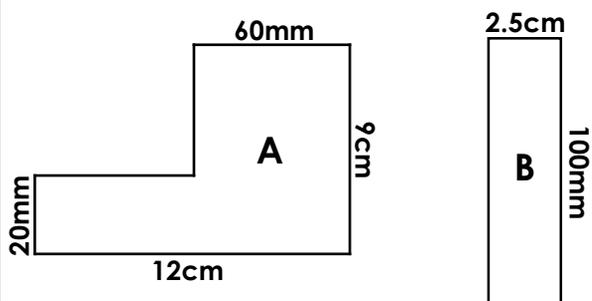
11b. Using the correct formulae, calculate the area and the perimeter of the shapes below.



Not to scale

VF

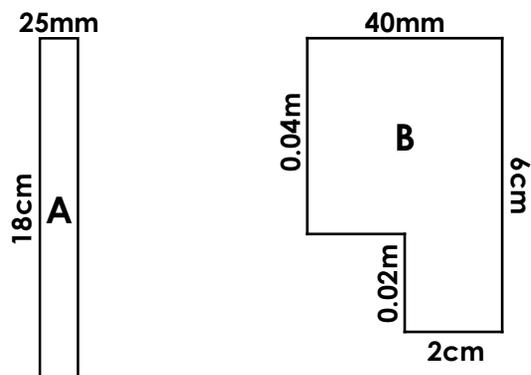
12a. Which shape has an area and a perimeter that equal the same number?



Not to scale

VF

12b. Which shape has an area and a perimeter that equal the same number?



Not to scale

VF

Varied Fluency Area and Perimeter

Developing

- 1a. 8cm
2a. 48ft²
3a. A. Area = 63cm², Perimeter = 32cm
B. Area = 48cm², Perimeter = 32cm
4a. A

Expected

- 5a. 100mm
6a. Area = 15 x 24 = 360ft²
7a. A. Area = 108cm², Perimeter = 42cm
B. Area = 72cm², Perimeter = 36cm
8a. B

Greater Depth

- 9a. 350cm
10a. Area = 18 x 3.5 = 63m²
11a. A. Area = 49.5cm², Perimeter = 29cm
B. Area = 3.6m², Perimeter = 13.2m
12a. B

Varied Fluency Area and Perimeter

Developing

- 1b. 9cm
2b. 96m²
3b. A. Area = 84m², Perimeter = 38m
B. Area = 144m², Perimeter = 48m
4b. B

Expected

- 5b. 6cm
6b. Area = 23 x 19 = 437m²
7b. A. Area = 63cm², Perimeter = 32cm
B. Area = 104cm², Perimeter = 42cm
8b. A

Greater Depth

- 9b. 120cm
10b. Area = 19 x 5.5 = 104.5m²
11b. A. Area = 169cm², Perimeter = 52cm
B. Area = 51m², Perimeter = 29m
12b. B