Year 6
Perimeter and Area

On Monday, Wednesday and Thursday, we will be recapping and learning about Perimeter and Area, Volume and Algebra

On Tuesday we will have our Arithmetic Lesson (At school with Mrs Whalley and at home with Mrs Anderton)

MONDAY 13/7/20

Flashback 4

Year 6

1) What is the output if the input is 12?

2) Work out 40% of 60

3) What is the 4 worth is 6.145?

4) Write down two factors of 20

Flashback 4 Year 6

1) What is the output if the input is 12?

43

2) Work out 40% of 60

24

3) What is the 4 worth is 6.145?

4 hundredths

4) Write down two factors of 20

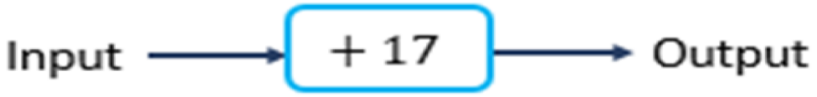
Any two of 1, 2, 4, 5, 10 and 20

Flashback 4

Year 6

1) If $a + b = 8$, what might a and b be?

2) What is the input if the output is 40?



3) Work out 3.67×6

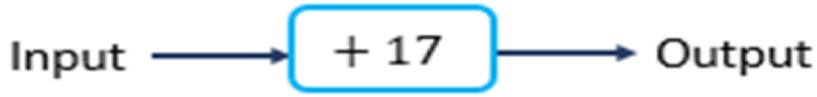
4) Add $3\frac{3}{5}$ to $4\frac{7}{10}$

Flashback 4 Year 6

1) If $a + b = 8$, what might a and b be?

8 and 0, 7 and 1, 5.5 and 2.5 etc.

2) What is the input if the output is 40?



23

3) Work out 3.67×6 22.02

4) Add $3\frac{3}{5}$ to $4\frac{7}{10}$ $8\frac{3}{10}$

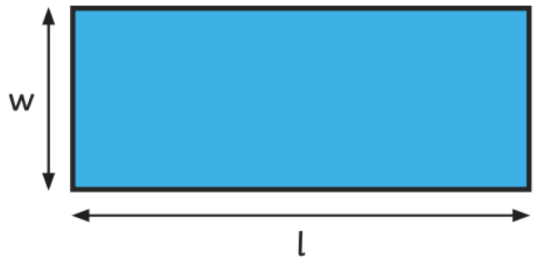
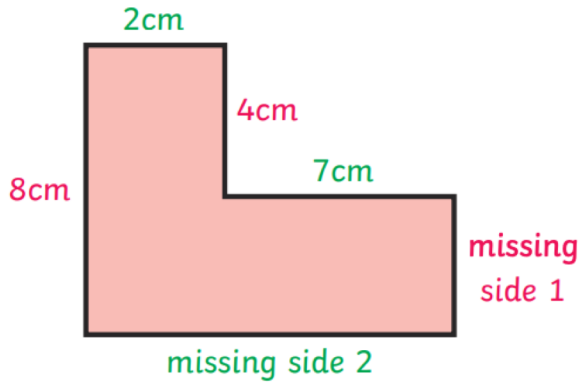
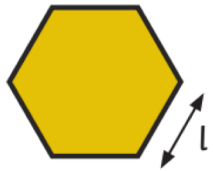
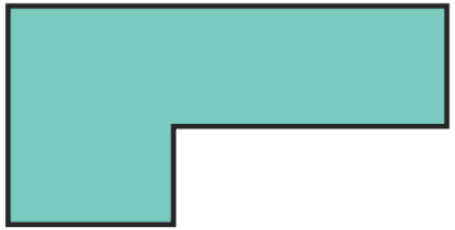
Perimeter and Area

Use the words to complete the sentences.

perimeter	cm^2	cm	m
area	m^2	inside	around

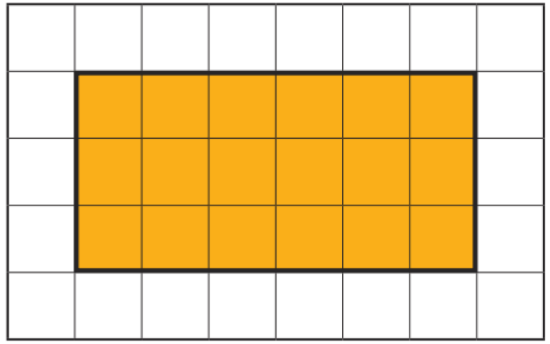
_____ is the amount of space _____ a two-dimensional shape. It can be measured in units such as _____ or _____

_____ is the distance _____ a two-dimensional shape. It can be measured in units such as _____ or _____

Key Vocabulary	Measure Perimeter	Calculate Perimeter
metre	**Measure the perimeter of a rectangle:**  Measure the length (l) and width (w). **Perimeter = l + w + l + w or (l + w) × 2**	**Calculate the missing sides of this rectilinear shape to find the perimeter:**  ** This shape is not drawn to the dimensions specified.* **Missing side 1 + 4cm = 8cm, so missing side 1 = 4cm.** **Missing side 2 = 2cm + 7cm = 9cm** **Perimeter = sum of all sides = 2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm**
kilometre		
perimeter		
length	**Measure the perimeter of regular shapes:**  Measure the length (l) and count the number of sides (s) on the shape. **Perimeter = l × s**	
width		
rectangle		
rectilinear	**Measure the perimeter of irregular shapes:**  Measure the length of each side and add them together.	
dimensions		

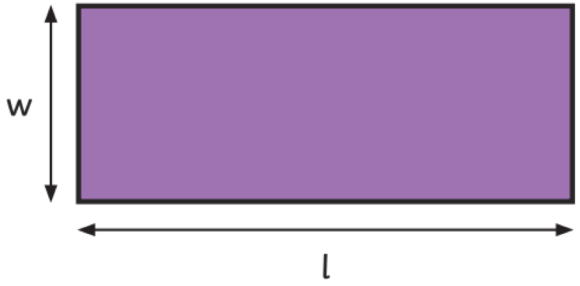
Area of Rectangles

The area of a rectangle on a grid:



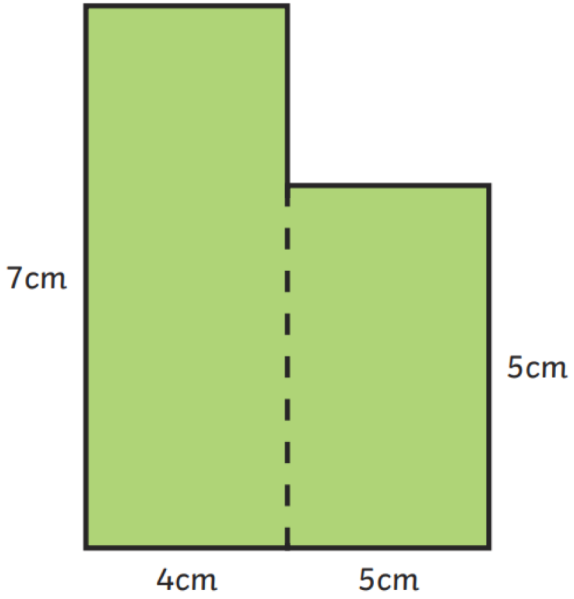
Multiply the length × width
= 6 × 3 = 18 squares.

The area of a rectangle = length (l) × width (w).



Area of Compound Shapes

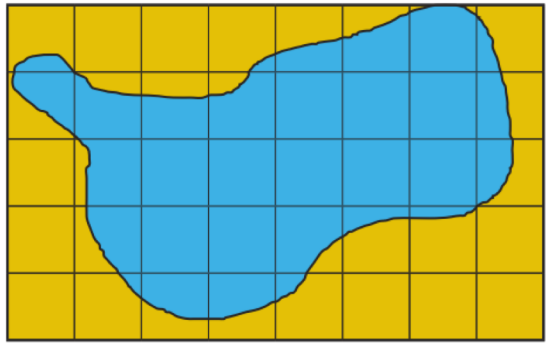
To find the area of a compound shape, divide the shape into rectangles with known dimensions:



Area = 7cm × 4cm + 5cm × 5cm
= 28cm² + 25cm²
= 53cm²

Area of Irregular Shapes

To find the area of an irregular shape, find the number of whole squares and part squares.



Whole squares = 10
Part squares = 22

Estimate of area = whole squares + half part squares

= 10cm² + 11cm² = 21cm²

*There are other ways to estimate the area of irregular shapes.

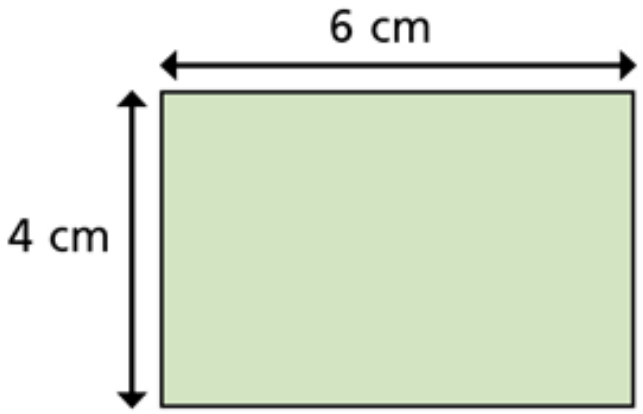
How do we work these out?

Perimeter: Add up all the side lengths

Area: Multiply the length by the width

Work out the areas and perimeters of the shapes.

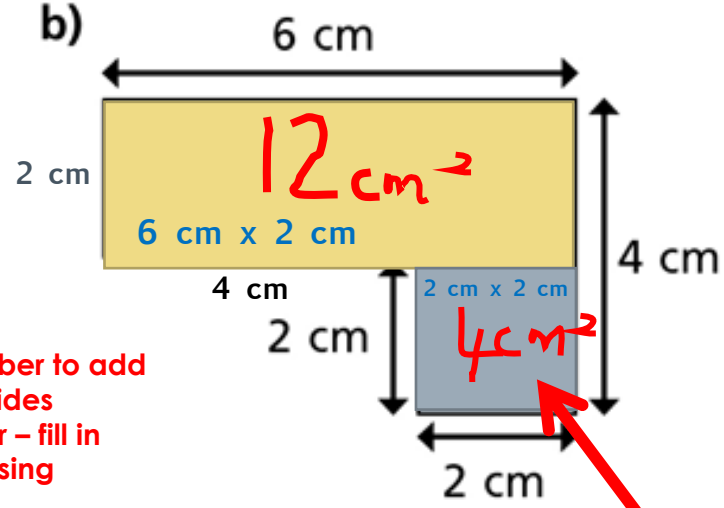
a)



perimeter = 20 cm

area = 24 cm²

b)



Remember to add all the sides together – fill in any missing lengths

perimeter = 20 cm

area = 16 cm²

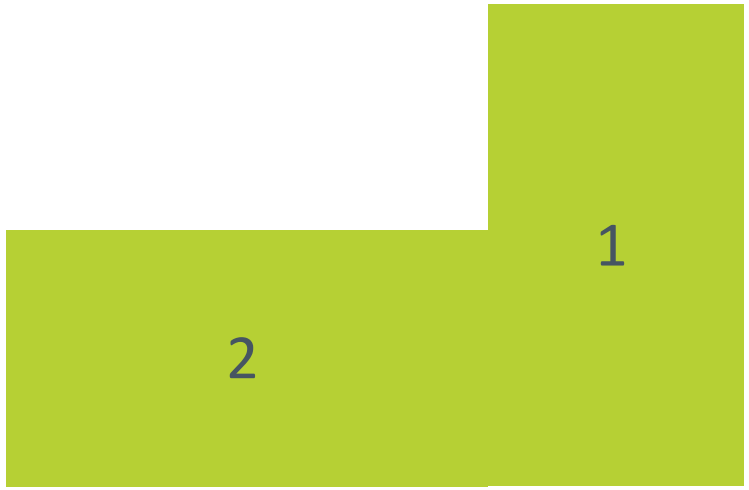
Split this up into 2 shapes to help you find the Area of the whole shape

Compound Area

Compound area is where a shape can be made up of other shapes.

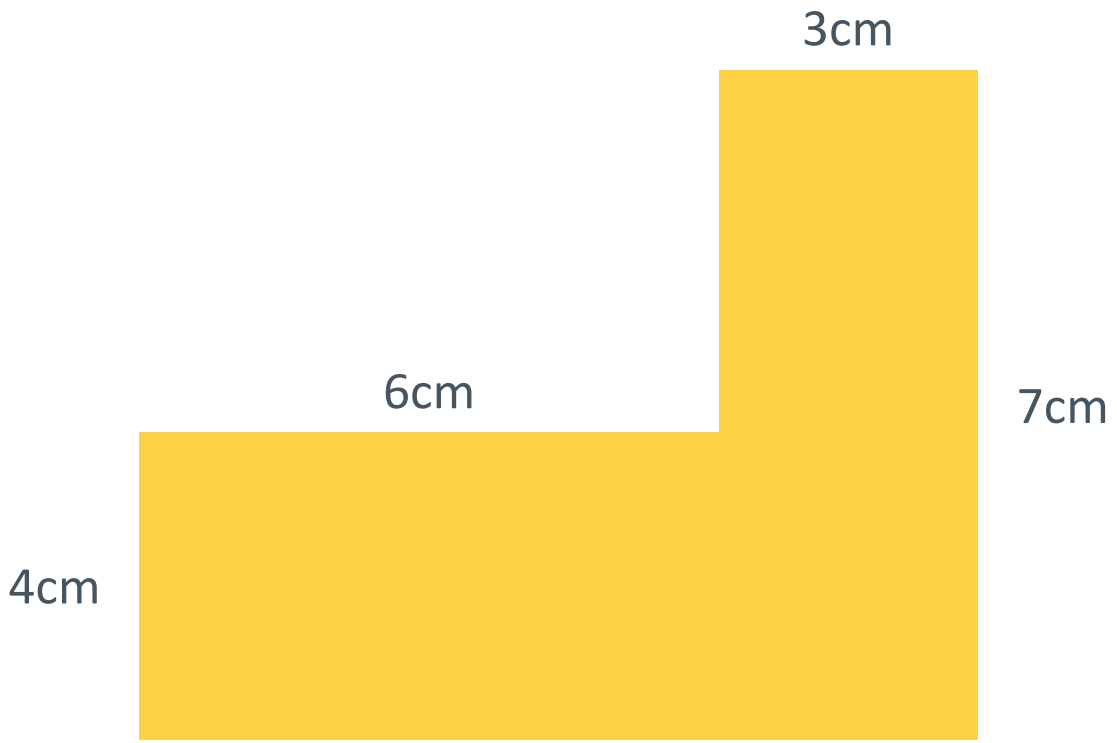
The area of a compound shape can be found by calculating the area of the shapes from which they can be formed, and adding these together.

Here is a compound shape made of 2 rectangles.



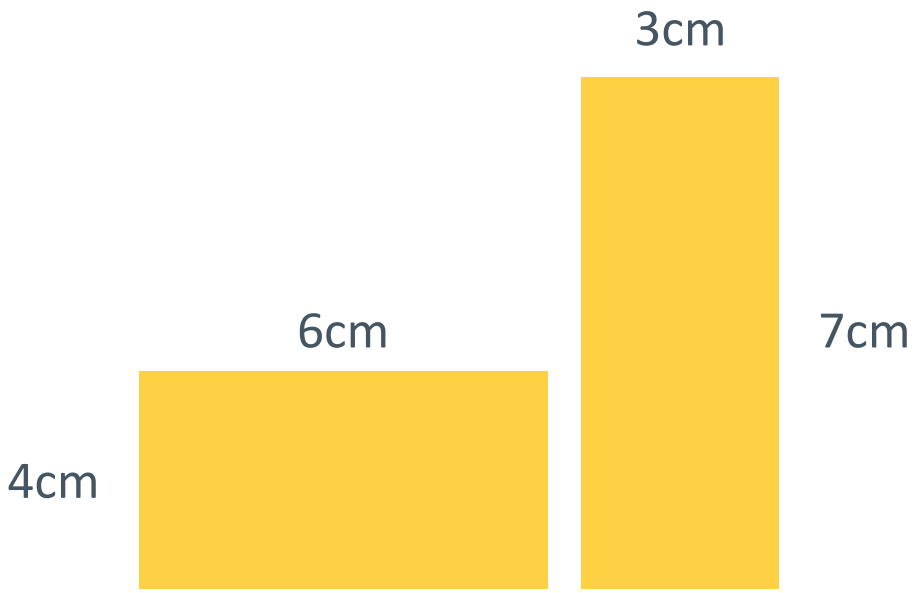
Compound Area

Calculate the area of this compound shape:



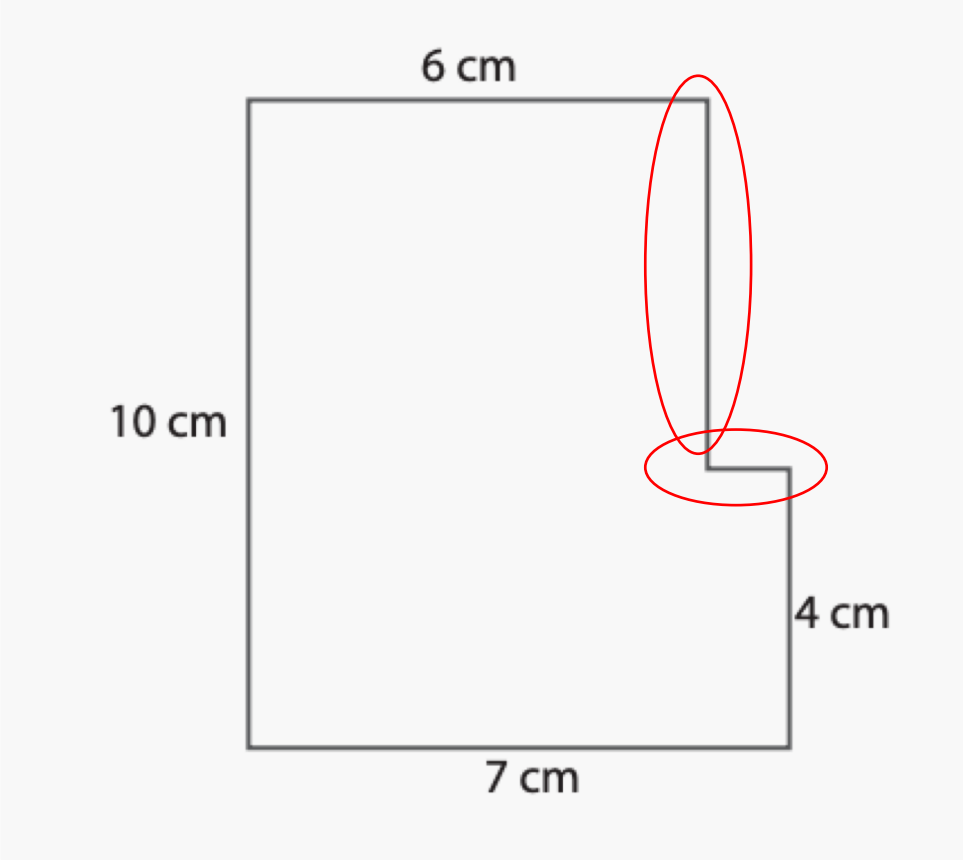
Compound Area

Calculate the area of this compound shape:



Area = (4cm x 6cm) + (3cm x 7cm) = $24cm^2 + 21cm^2 = 45cm^2$

Perimeter and Area

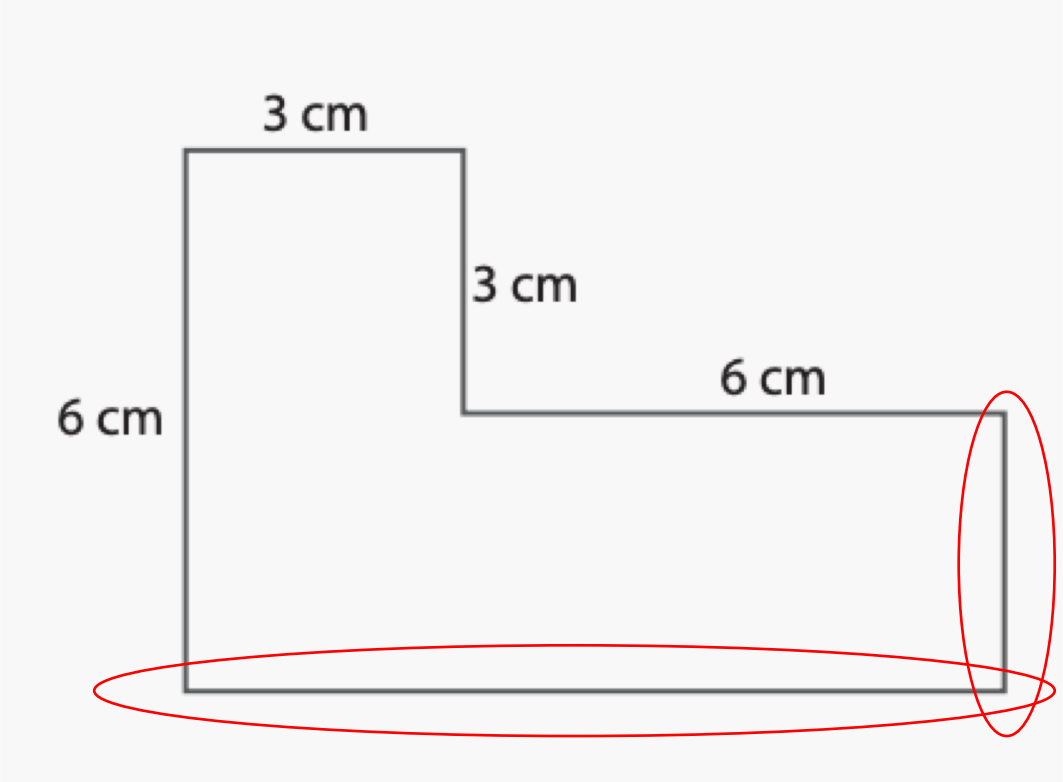


Perimeter =

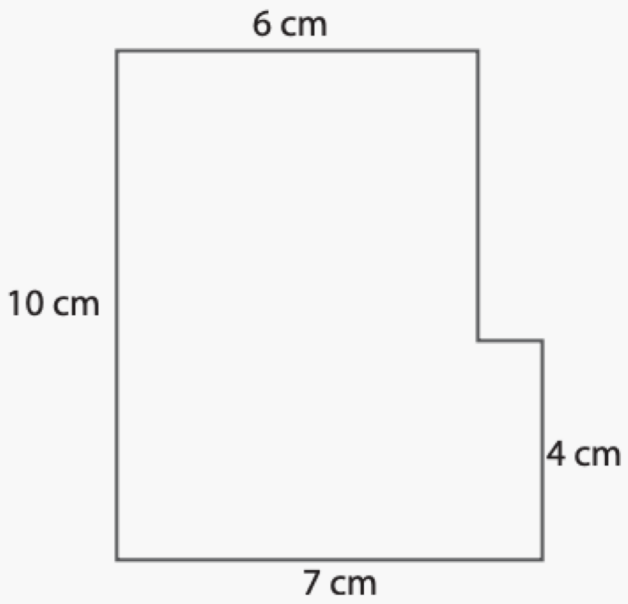
Area =

Perimeter =

Area =

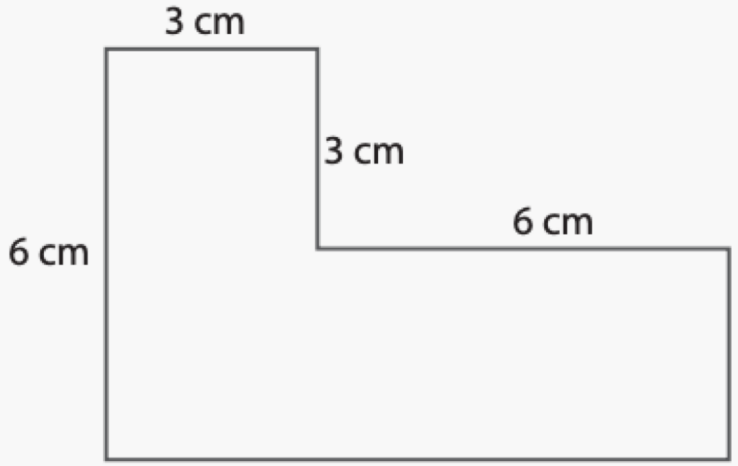


Answers



Perimeter: 34 cm

Area: 64 cm^2

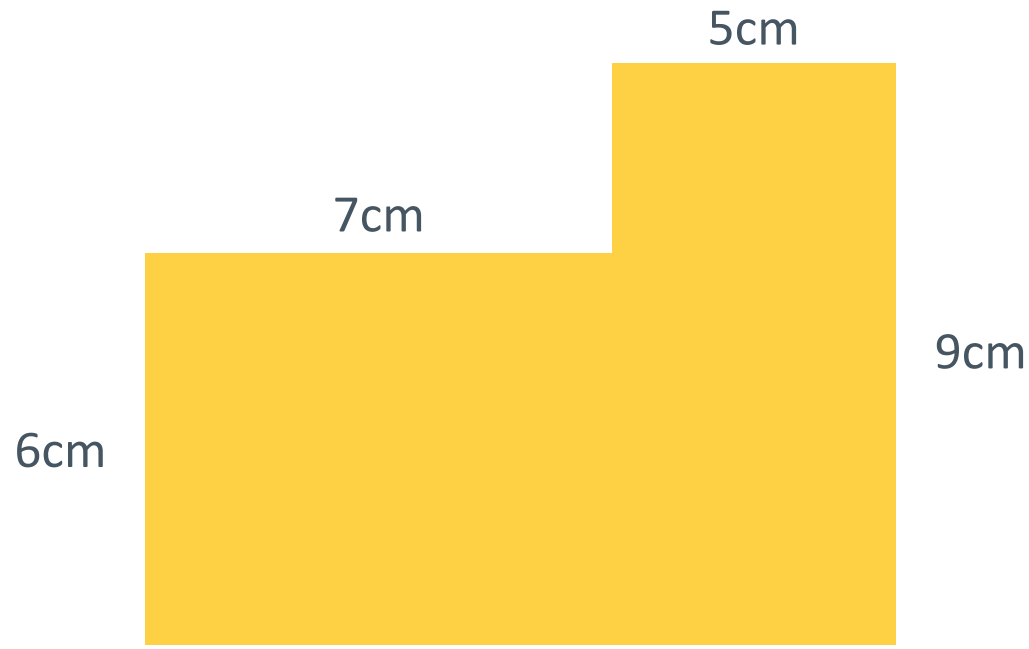


Perimeter: 30 cm

Area: 36 cm^2

Compound Area

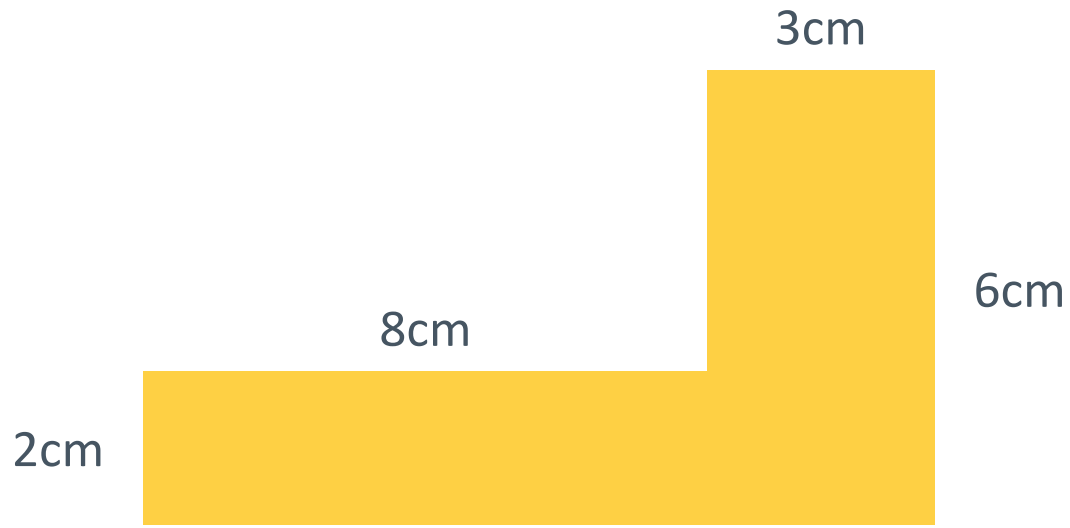
Calculate the area of this compound shape:



Area = (6cm x 7cm) + (5cm x 9cm) = $42cm^2 + 45cm^2 = 87cm^2$

Compound Area

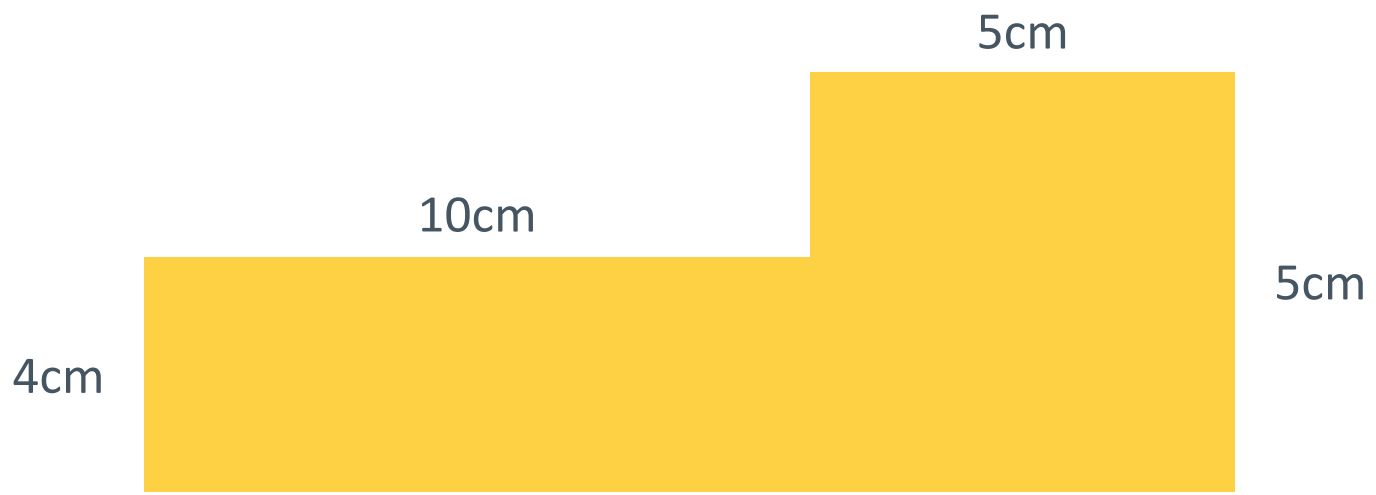
Calculate the area of this compound shape:



Area = (2cm x 8cm) + (3cm x 6cm) = $16cm^2 + 18cm^2 = 34cm^2$

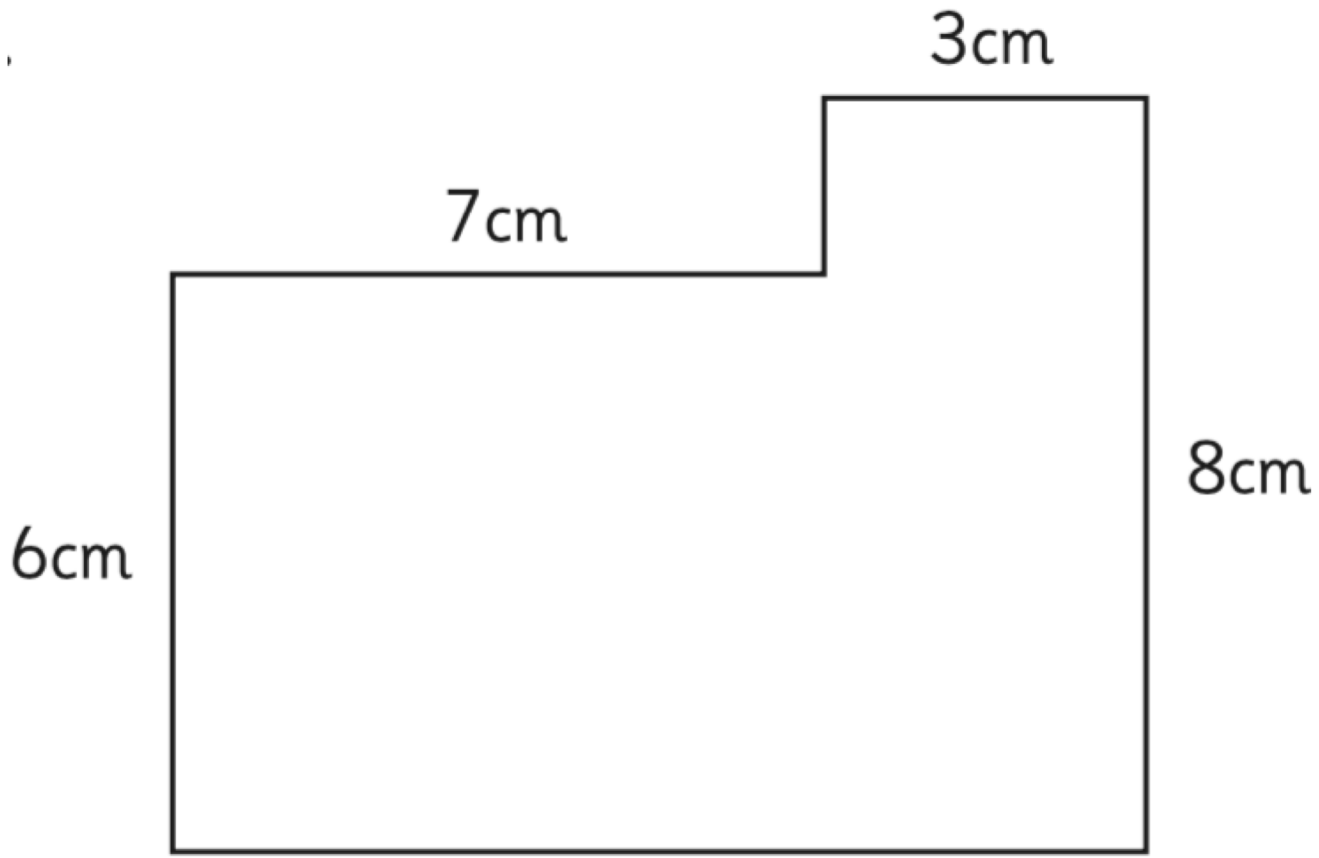
Compound Area

Calculate the area of this compound shape:

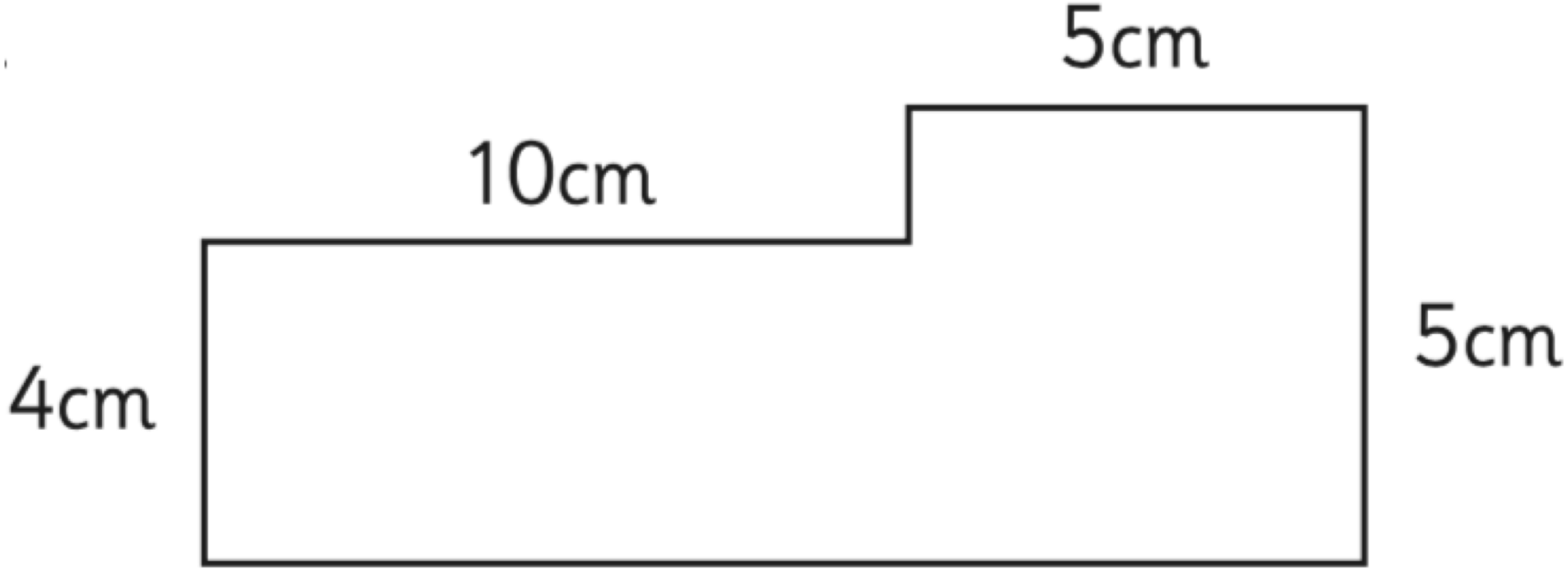


Area = (4cm x 10cm) + (5cm x 5cm) = $40cm^2 + 25cm^2 = 65cm^2$

Perimeter and Area



Perimeter and Area



Have a go at the Perimeter and Area questions in your book

Extra Challenge – Can you find the dimensions when you are given the Area and Perimeter?