



Year 6
Maths
Thursday (Lesson 4)



I can find the area and perimeter of basic shapes.

Success criteria:

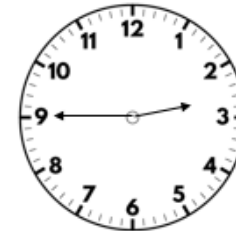
- I know how to find the area
- I know how to find the perimeter.
- I can split a compound shape into different rectangles.
- I can find missing sides by looking carefully at the measurements provided.



Flashback 4

Year 6 | Week 7 | Day 4

- 1) A book weighs 385 g.
How much will 12 books weigh?
Give your answer in kilograms



- 2) Solve the equation $2y + 7 = 16$
- 3) Work out 15% of 400 kg
- 4) What is the 6 worth in the number 869,523?

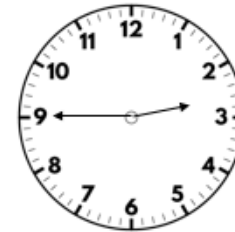


Flashback 4

Year 6 | Week 7 | Day 4

- 1) A book weighs 385 g.
How much will 12 books weigh?
Give your answer in kilograms

4.62(0) kg



- 2) Solve the equation $2y + 7 = 16$ $y = 4\frac{1}{2}$
- 3) Work out 15% of 400 kg 60 kg
- 4) What is the 6 worth in the number 869,523?

Sixty thousand



Review the work from yesterday. How do you convert units of measurement?

What can you remember?



Learn

A **rectilinear shape** is a shape that has lots of sides that meet at right angles.

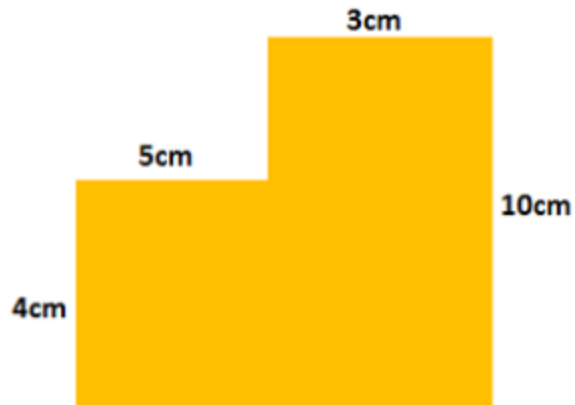
They normally look like two or more rectangles that have been joined together.





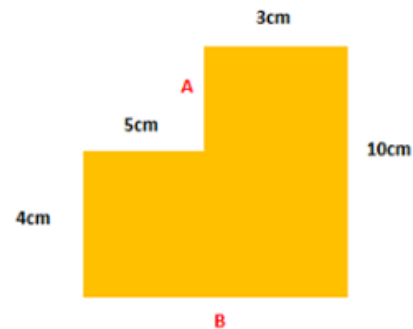
Perimeter of rectilinear shapes

The perimeter of a shape is the distance around the outside. How would you find the perimeter of this rectilinear shape?





Step 1: Find the lengths of the missing sides. Look at the values of the lines parallel to the missing lengths.



The missing sides have been labelled **A** and **B** on the diagram above.

- **A** is parallel to the 10 cm and 4 cm side. If you put **A** and the 4 cm line together, it would be the same length as the 10 cm line. You could write this as $4\text{ cm} + \mathbf{A} = 10\text{ cm}$. We can solve this to find that $\mathbf{A} = \underline{6\text{ cm}}$
- **B** is parallel to the 5 cm and 3 cm line. If you put them both together, they would be the same length as **B**. So $5\text{ cm} + 3\text{ cm} = \mathbf{B}$. Therefore, $\mathbf{B} = \underline{8\text{ cm}}$.



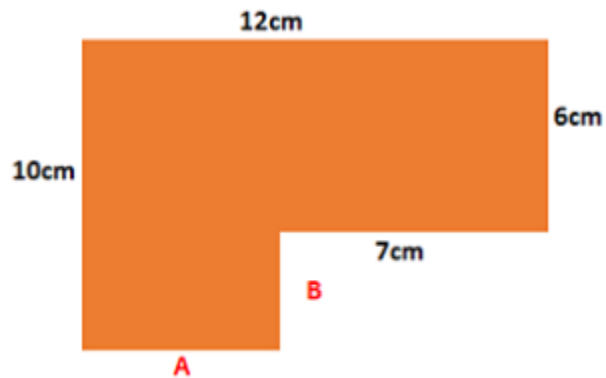
Step 2: Add up all the sides to find the perimeter.

$$4 \text{ cm} + 5 \text{ cm} + 8 \text{ cm} + 10 \text{ cm} + 3 \text{ cm} + 6 \text{ cm} = \underline{36 \text{ cm}}$$



Area of rectilinear shapes

Area is the amount of 'space' occupied by a 2D shape. How would you find out the area of a rectilinear shape?

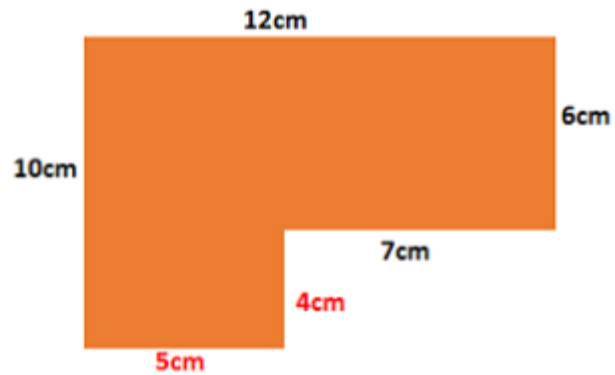




Step 1: Find the missing lengths using the parallel line logic.

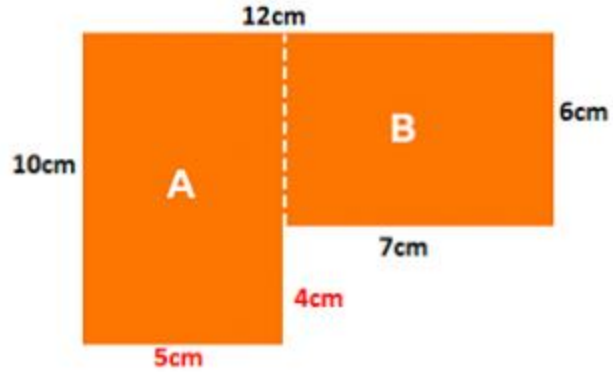
A: $12\text{cm} - 7\text{cm} = 5\text{cm}$

B: $10\text{cm} - 6\text{cm} = 4\text{cm}$





Step 2: Split the rectilinear shape into two separate rectangles.





Step 3: Find the area of both rectangles making sure you're using the correct measurements for the new smaller rectangles.

A: $10 \text{ cm} \times 5 \text{ cm} = 50 \text{ cm}^2$

B: $7 \text{ cm} \times 6 \text{ cm} = 42 \text{ cm}^2$

Step 4: Add the two areas together to find the total area of the rectilinear shape.

$50 \text{ cm}^2 + 42 \text{ cm}^2 = \underline{92 \text{ cm}^2}$



Now work through the activities on the website.



Review

- Can you review your learning?
- Can you explain to others how to find area and perimeter of rectangles?

