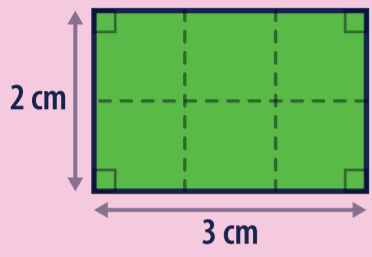


Task design in KS3 Area of rectangles

Attainment Level 1

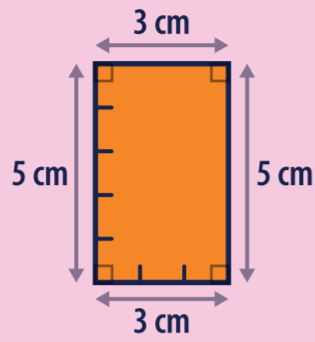
Introduce

What is the **area** of the rectangle?

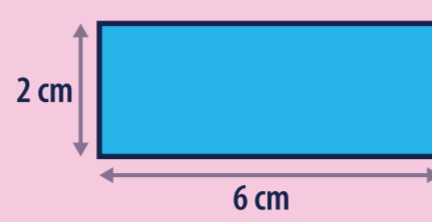


Showing partial grid lines provides scaffolding and helps to link the method being taught to prior knowledge on the concept of area

What is the **area** of the rectangle?

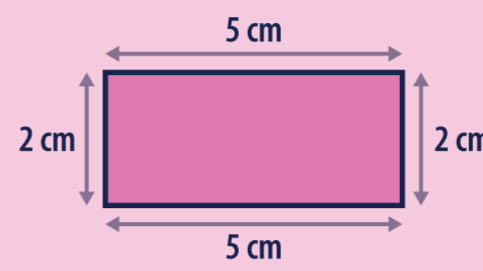


Find the **area** of the rectangle below.



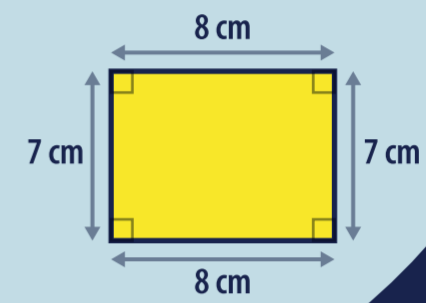
Keeping times tables simple ensures that students are practicing the concept rather than being distracted by the arithmetic

What is the **area** of this rectangle?



Giving all four side lengths combats the misconception that you multiply together all of the side lengths in the question

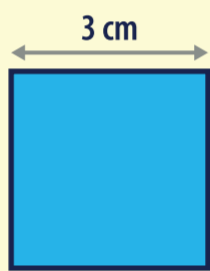
What is the **area** of the rectangle below?



Using harder times tables in consolidation questions provides helpful times tables practice

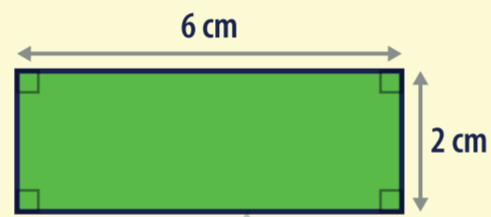
Deepen

What is the **area** of this square?



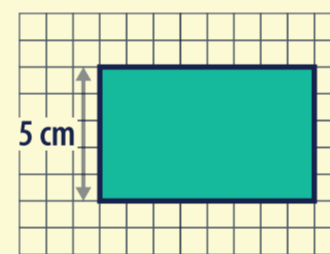
Bringing in the properties of a square provides problem solving practice and combats the misconception that area can be found by just multiplying the unique values given

Work out the **area** and **perimeter** of the rectangle below.



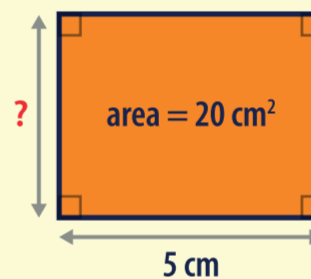
Asking for the area and perimeter in the same question tests that students can differentiate between the two and choose the correct units to give for each answer

What is the **area** of the green rectangle?



Asking questions in different ways, for example where students first need to identify the side lengths or need to work backwards, provides consolidation

What is the length of the unknown side in the rectangle below?



Asking more open questions provides students with opportunities to deepen thinking and understanding

A rectangle has an area of 24 cm^2 .

How long could the sides of the rectangle be? Give three different examples.

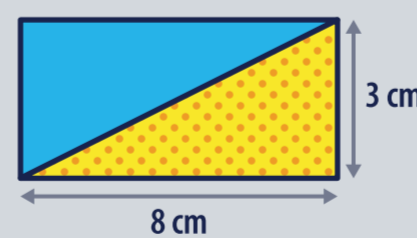
Strengthen

Further questions are available on the area of rectangles at higher attainment levels, including exam-style questions. Across all KS3 area and perimeter topics, over 250 unique learning points are covered by 700+ questions.

The **area** of the rectangle is equal to the **area** of the square. Calculate the side length of the square.

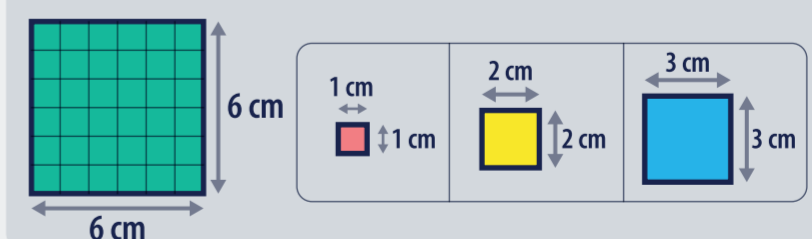


Work out the **area** of the dotted, yellow triangle.



A mat is $6 \text{ cm} \times 6 \text{ cm}$

- How many $1 \text{ cm} \times 1 \text{ cm}$ tiles are needed to cover the mat?
- How many $2 \text{ cm} \times 2 \text{ cm}$ tiles are needed to cover the mat?
- How many $3 \text{ cm} \times 3 \text{ cm}$ tiles are needed to cover the mat?



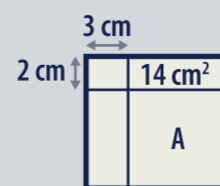
Mo is cutting the grass on the school field. The field is a rectangle 100 m long and 80 m wide. If he cuts 40 m^2 of grass per minute, how many minutes would it take him to cut it all?

Gail is making a patio for her garden that measures $2 \text{ m} \times 3 \text{ m}$. She is using tiles that are $0.5 \text{ m} \times 0.5 \text{ m}$. How many tiles does she need?

The diagram shows a square with a **perimeter** of 12 cm . Six of these squares fit together to make a rectangle. What is the **area** of the rectangle? Give your answer in cm^2 .



Two straight lines are drawn onto a square to create four rectangles. Work out the **area** of the rectangle marked A.



Each of the small shaded squares inside the rectangle below has an area of 9 cm^2 .

What is the area of the whole rectangle? Give your answer in cm^2 .

