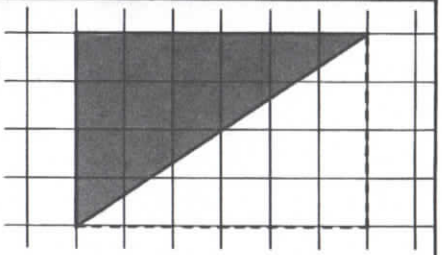
33 Areas of right-angled triangles

To find the area of the orange triangle first draw its surrounding rectangle and then record like this:

Area of rectangle = 24 cm²
Area of right-angled triangle = ½ of 24 cm²
= **12 cm²**



Find the area of each right-angled triangle after drawing its surrounding rectangle.

1

Area of rectangle = 10 cm²

Area of right-angled triangle = ½ of 10 cm²

= 5 cm²

2

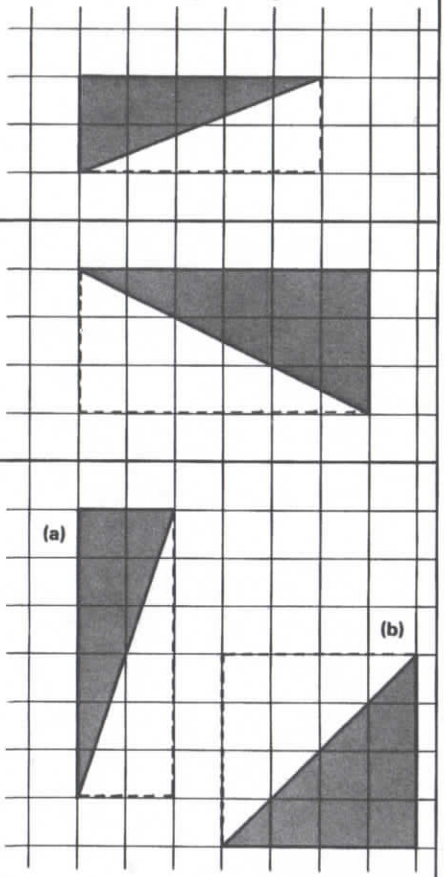
Area of rectangle = 18cm²
Area of right-angled triangle = ½ of 18cm²
= 9cm²

3 (a)

Area of rectangle = 12cm²
Area of right-angled triangle = ½ of 12 cm²
= 6cm²

(b)

Area of square = 16cm²
Area of right-angled triangle = ½ of 16cm²
= 8cm²



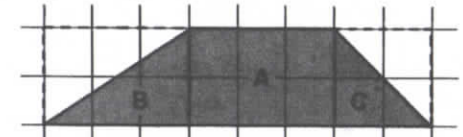
Go back to Textbook Page 81, question 5.

34 Using right-angled triangles

Draw lines to divide each shape into rectangles and right-angled triangles.
For each right-angled triangle draw the surrounding rectangle.
Find the area of each **whole** shape.

1

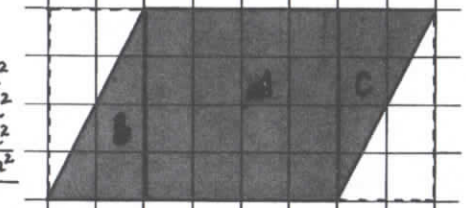
Area of rectangle **A** = 6 cm²
Area of right-angled triangle **B** = 3 cm²
Area of right-angled triangle **C** = 2 cm²
Area of **whole** shape = 11 cm²



2

Area of square A = 16cm²
Area of right-angled triangle B = 4cm²
Area of right-angled triangle C = 4cm²
Area of whole shape = 24cm²

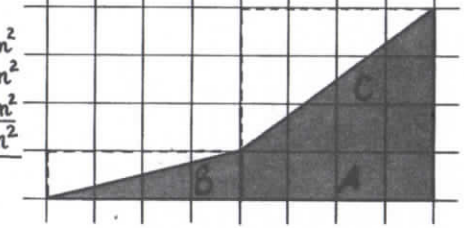
Other divisions are possible.



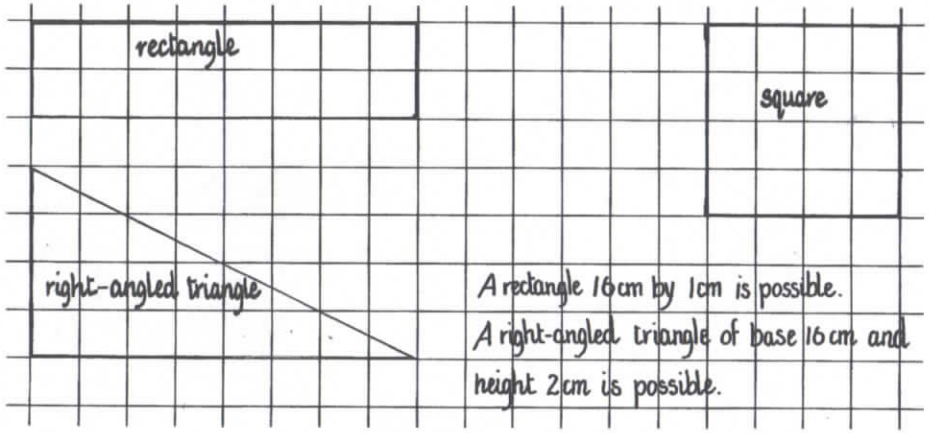
3

Area of rectangle A = 4cm²
Area of right-angled triangle B = 2cm²
Area of right-angled triangle C = 6cm²
Area of whole shape = 12cm²

Other divisions are possible.



4 Draw a rectangle, a square, and a right-angled triangle **each** with an area of 16 cm².



A rectangle 16cm by 1cm is possible.
A right-angled triangle of base 16cm and height 2cm is possible.

Do Workbook Page 35.