

Knowing how to work out the area of quadrilaterals is useful in everyday life. For example, laying turf for a football pitch.

To calculate the area, check the units are the same, then multiply length by breadth.

This pitch measures 105 metres times 68 metres.

So, the area is seven thousand one hundred and forty square metres.

Area is always expressed in square units.

Like the football pitch, this garden needs some new grass, but it has a flowerbed in the centre.

How much turf is needed?

Work this out by calculating the area of the whole garden and subtracting the area of the flowerbed.

Check the units are the same.

Calculate the area of each rectangle by multiplying length by breadth.

13 times 7 is 91 and four times one is four.

Then subtract the area of the flowerbed, from the area of the whole garden, to find the area of the grass - in square metres.

91 minus four is 87, so 87 square metres.

But what if the flowerbed was a trapezium shape instead of a rectangle?

For a trapezium, area is calculated using the length of the parallel sides and the perpendicular height between them. The formula is Half $a + b$ times h .

The measurements are five metres, seven metres and four metres.

Five plus seven is twelve. Half of twelve is six. And six times four equals 24.

So, the area is 24 square centimetres.

Remember, always check the units are the same and always express area in square units.