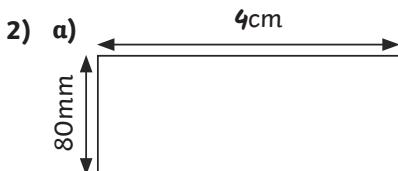
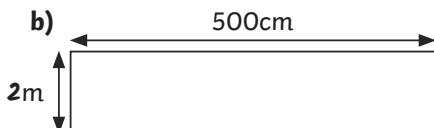


- 1) a) Perimeter = 52cm Area = 153cm²
 b) Perimeter = 21m Area = 27 m²
 c) Perimeter = 56cm Area = 116.2cm²



$$\text{Perimeter} = 24\text{cm}$$

$$\text{Area} = 32\text{cm}^2$$



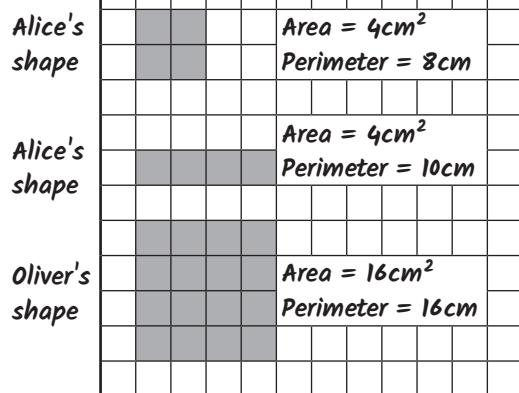
$$\text{Perimeter} = 14\text{m}$$

$$\text{Area} = 10\text{m}^2$$

1) Alice's statement is true. A 2cm × 2cm square will give an area of 4cm² and a perimeter of 8cm. A 1cm × 4cm rectangle will give an area of 4cm² and a perimeter of 10cm. Shapes with different dimensions are also possible.



Oliver's statement is true. A 4cm × 4cm square will give an area of 16cm² and a perimeter of 16cm. Another solution is a 6cm × 3cm rectangle which will give an area of 18 cm² and a perimeter of 18cm.



2) a) Ben is partly correct. He is correct in thinking that the area will be three times that of the original square, however, the new shape has four of the original sides inside the shape, therefore its perimeter will not be three times as large as the original square's perimeter.

b) The area of the new shape will be 147cm² as
 $7 \times 7 = 49\text{cm}^2$ and
 $3 \times 49\text{cm}^2 = 147\text{cm}^2$

The new shape has four of the original square's sides inside the shape, therefore its perimeter is 56cm.

- 1) a) 1m² of a fence panel = £2 per m²
 b) 1 metre of the length of wooden frame around the panel = £1 per metre



- 2) a) £28 = 4m × 2m or 2m × 4m panel
 b) £30 = 7m × 1m or 1m × 7m panel or 3m × 3m panel.