

2 d)

Answer

$A = \frac{1}{7}$ of rectangle and $B = \frac{6}{7}$ of rectangle

$\frac{1}{3}$ of B removed, therefore:

$$B = \frac{2}{3} \times \frac{6}{7} = \frac{2}{1} \times \frac{2}{7} = \frac{4}{7} \text{ of original rectangle}$$

1

A : B

$$\frac{1}{7} : \frac{4}{7}$$

$$1 : 4$$

1

$A = \frac{1}{5}$ of remaining shape

Answer: $\frac{1}{5}$

1

Total:

3

Method

If A is $\frac{1}{7}$, then B must be $\frac{6}{7}$ of the original shape.

If $\frac{1}{3}$ of B is removed, then $\frac{2}{3}$ of B must remain.

That means B is now $\frac{2}{3}$ of $\frac{6}{7}$ of the original shape.

When multiplying the two fractions, you can cancel down the 3 and the 6 to make the calculation simpler.

The ratio of A : B is now 1 : 4. There are five parts in the ratio, so A is $\frac{1}{5}$ of the new shape.

Top Tip

Mark the fractions on the diagram, so you can picture what is happening.

A ratio is another way of writing a fraction.