

Break Down Shapes

BDS Introduction

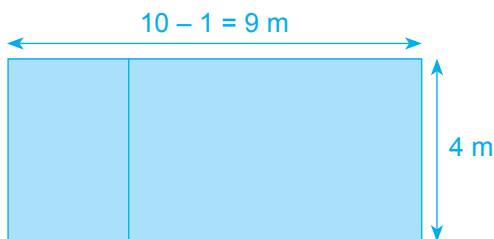
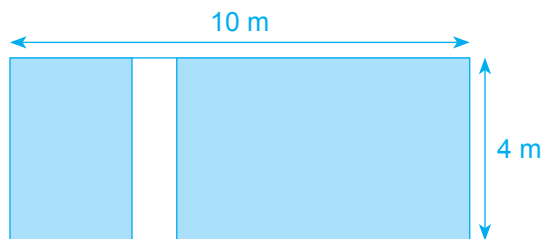


In **Cut Same Size (BDS)**, the aim is to cut models into equal parts so that quantities can be expressed directly as units against one another.

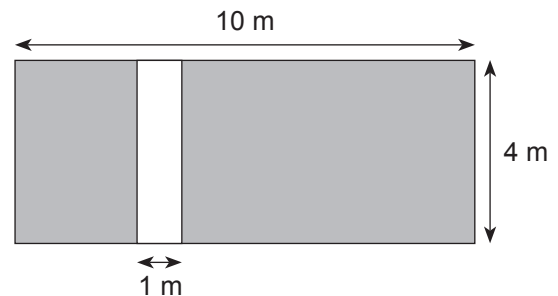
Tip: Break down the shapes into steps so that the final step will contain all the shapes needed to derive the answer.

BDS Example

Find the shaded area.



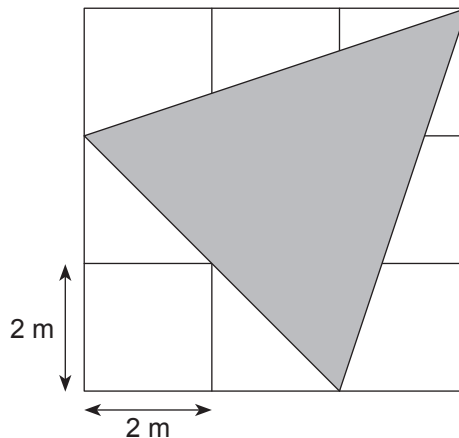
Area (shaded) $\rightarrow 9 \times 4 = 36 \text{ m}^2$



Ans: 36 m²

Question 1

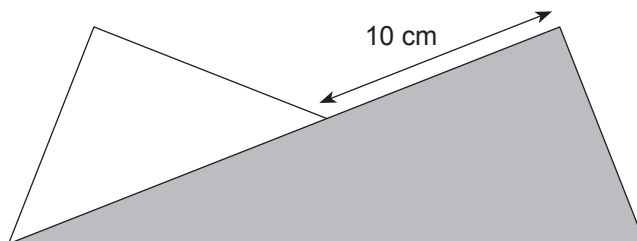
Find the shaded area.



Ans: _____

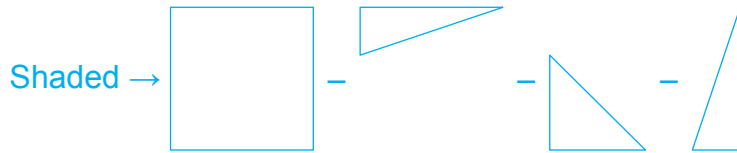
Question 2

A rectangular piece of paper measuring 60 cm by 24 cm is folded as shown. Find the unshaded area.



Ans: _____

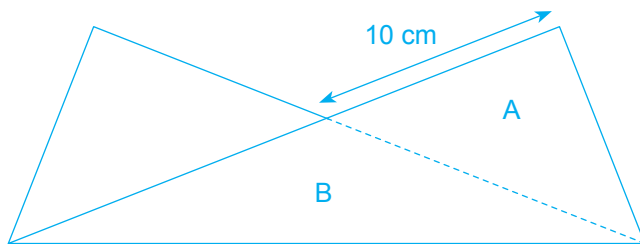
Question 1



$$\begin{aligned} &\rightarrow 6 \times 6 - \frac{1}{2} \times 6 \times 2 - \frac{1}{2} \times 4 \times 4 - \frac{1}{2} \times 2 \times 6 \\ &= 36 - 6 - 8 - 6 \\ &= 16 \text{ m}^2 \end{aligned}$$

Ans: 16 m²

Question 2



$$A \rightarrow \frac{1}{2} \times 24 \times 10 = 120 \text{ cm}^2$$

$$\text{Unshaded} \rightarrow 120 \text{ cm}^2$$

Ans: 120 cm²