Break Down Shapes

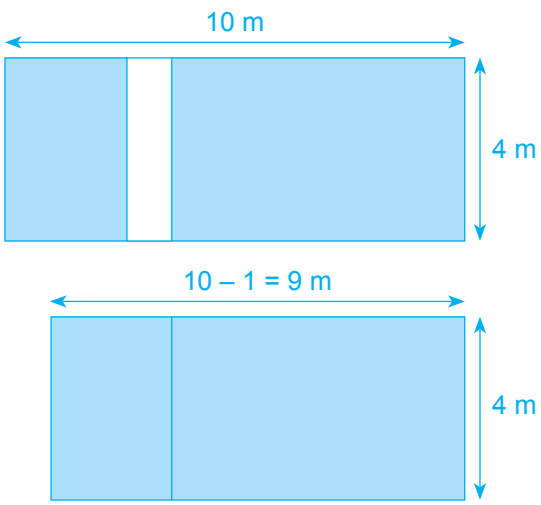
BDS Introduction

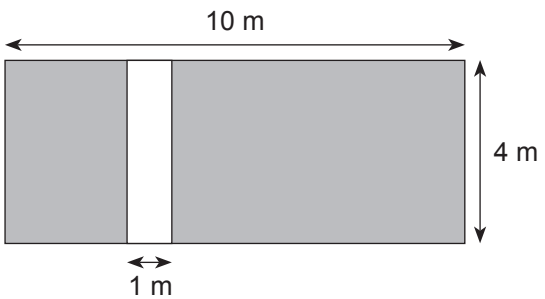
In **Cut Same Size (BDS)**, the aim is to cut models into equal parts so that quantities can be expressed directly as units against one another.

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) → $9 \times 4 = 36\ m^2$

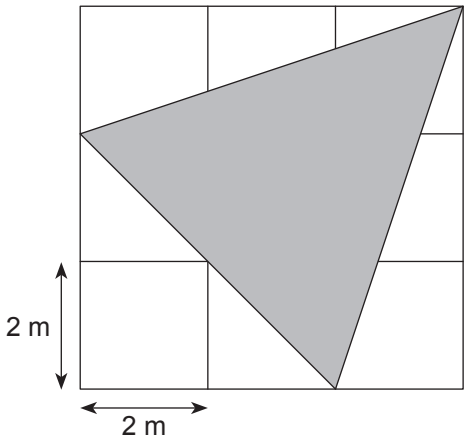
Ans: $36\ m^2$

Adapted:
Score A* in Singapore Mathematics Problem Sums Level 5 (Advanced Edition)

BDS

Question 1

Find the shaded area.

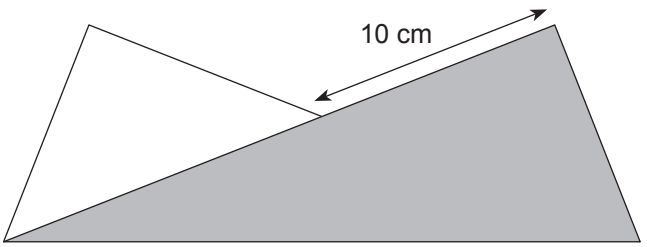


Ans: _____

BDS

Question 2

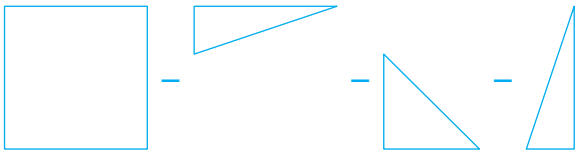
A rectangular piece of paper measuring 60 cm by 24 cm is folded as shown. Find the unshaded area.



Ans: _____

BDS

Question 1

Shaded →  –

$$\rightarrow 6 \times 6 - \frac{1}{2} \times 6 \times 2 - \frac{1}{2} \times 4 \times 4 - \frac{1}{2} \times 2 \times 6$$

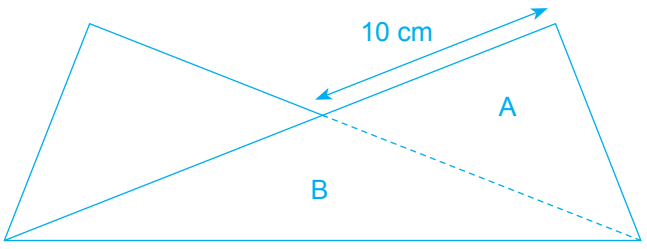
$= 36 - 6 - 8 - 6$

$= 16 \text{ m}^2$

Ans: 16 m^2

BDS

Question 2



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

Unshaded → 120 cm^2

Ans: 120 cm^2