

# Area and Perimeter

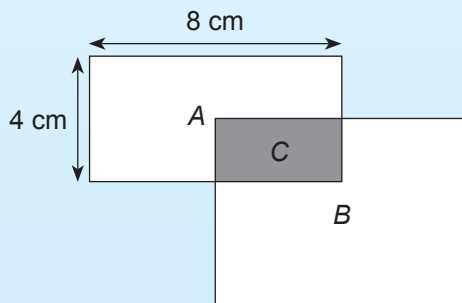
## Classic Example

The figure below is made up of Rectangle  $A$ , Rectangle  $B$  and Rectangle  $C$ .

The area of Rectangle  $C$  is  $\frac{1}{6}$  the area of Rectangle  $B$ .

The area of Rectangle  $A$  is  $\frac{2}{3}$  the area of Rectangle  $B$ .

Find the area of Rectangle  $C$ .



### Solution

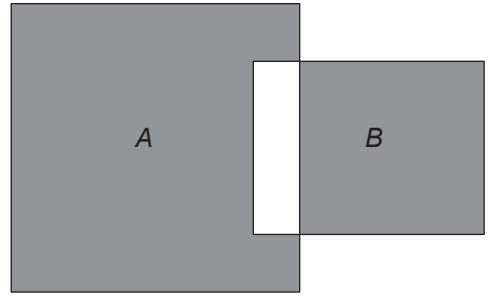
$$\text{Area of } A \rightarrow 4 \times 8 = 32 \text{ cm}^2$$

$$\begin{aligned} \text{Area } B &\rightarrow 32 \div \frac{2}{3} \\ &= 32 \times \frac{3}{2} \\ &= 48 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Area of } C &\rightarrow \frac{1}{6} \times 48 \\ &= 8 \text{ cm}^2 \end{aligned}$$

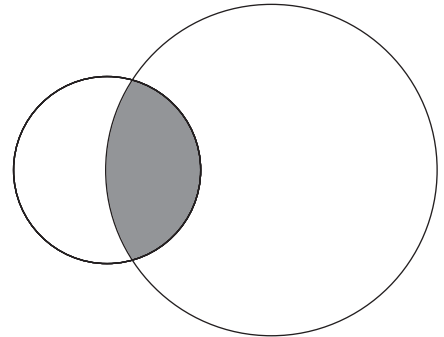
**Ans: 8 cm<sup>2</sup>**

1. A square of side 10 cm overlaps a rectangle of 8 cm × 6 cm as shown.  
Find the area of (shaded region A – shaded region B).



Ans: \_\_\_\_\_ cm<sup>2</sup>

2. The area of the small circle is given as 90 cm<sup>2</sup>.  
The overlapped region is  $\frac{2}{5}$  the area of the small circle and  $\frac{3}{13}$  the area of the big circle.  
Find the area of the big circle.



Ans: \_\_\_\_\_ cm<sup>2</sup>

2. Area of overlapped region  $\rightarrow \frac{5}{2} \times 90 = 36 \text{ cm}^2$

3 u  $\rightarrow 36 \text{ cm}^2$   
 1 u  $\rightarrow 12 \text{ cm}^2$   
 13 u  $\rightarrow 12 \times 13 = 156 \text{ cm}^2$   
 = 156 cm<sup>2</sup>  
**Ans: 156 cm<sup>2</sup>**

1.  $10 \times 10 = 100 \text{ cm}^2$   
 $8 \times 6 = 48 \text{ cm}^2$   
 $100 - 48 = 52 \text{ cm}^2$   
 Comment: No matter what size the overlapped region is, it will be eliminated in the process of subtraction.  
**Ans: 52 cm<sup>2</sup>**

**Answers:**