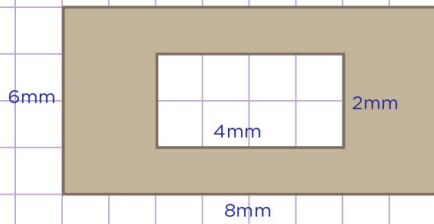


Name: Class:

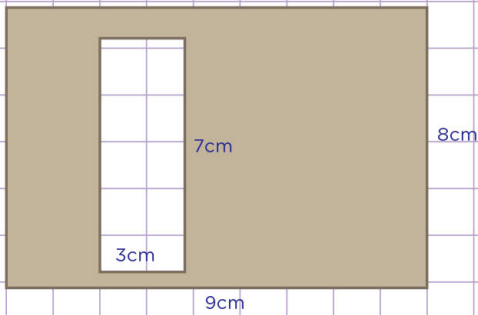
Area between two rectangles

Find the area between the following two rectangles.

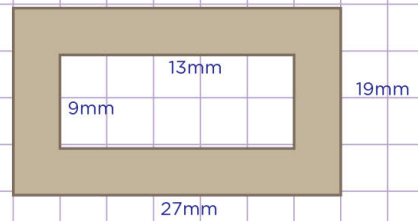
a.



b.



c.

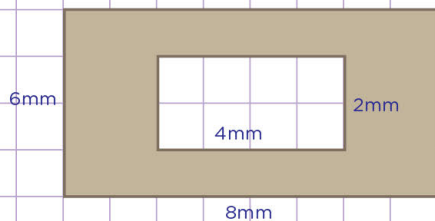


Name: Class:

Area between two rectangles

Find the area between the following two rectangles.

a.



Let's first of all find the area of the outer rectangle.

$$\begin{aligned} \text{Area} &= \text{length} \times \text{width} \\ &= 8 \text{ mm} \times 6 \text{ mm} = 48\text{mm}^2 \end{aligned}$$

Secondly, let's find the area of the inner rectangle

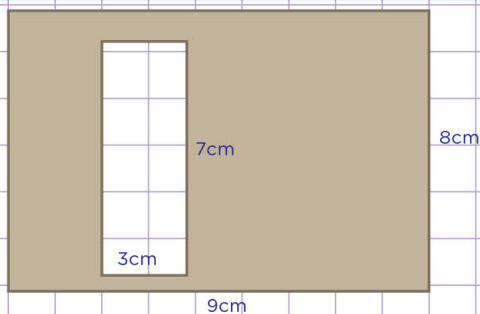
$$\begin{aligned} \text{Area} &= \text{length} \times \text{width} \\ &= 4\text{mm} \times 2\text{mm} \\ &= 8\text{mm}^2 \end{aligned}$$

Finally, let's find the area of the shaded region.

$$\begin{aligned} \text{Area of shaded region} &= \\ \text{Area of outer rectangle} - \text{Area of inner rectangle} \\ &= (48 - 8) \text{ mm}^2 = 40\text{mm}^2 \end{aligned}$$

So, the area between the two rectangles is 40 square millimeters.

b.



Let's first of all find the area of the outer rectangle.

$$\begin{aligned} \text{Area of outer rectangle} &= \text{length} \times \text{width} \\ &= 9\text{cm} \times 8\text{cm} = 72\text{cm}^2 \end{aligned}$$

Then, let's find the area of the inner rectangle

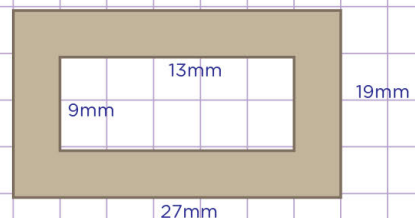
$$\begin{aligned} \text{Area of inner rectangle} &= \text{length} \times \text{width} \\ &= 3\text{cm} \times 7\text{cm} = 21\text{cm}^2 \end{aligned}$$

Finally, area of shaded region =

$$\begin{aligned} \text{Area of the (outer rectangle - inner rectangle)} \\ &= 72\text{cm}^2 - 21\text{cm}^2 = 51\text{cm}^2 \end{aligned}$$

So, the area between the two rectangles is equal to 51 square centimeters.

c.



Let's first of all find the area of the outer rectangle.

$$\begin{aligned} \text{Area of outer rectangle} &= \text{length} \times \text{width} \\ &= 27\text{mm} \times 19\text{mm} = 513\text{mm}^2 \end{aligned}$$

Then, let's find the area of the inner rectangle

$$\begin{aligned} \text{Area of inner rectangle} &= \text{length} \times \text{width} \\ &= 13\text{mm} \times 9\text{mm} = 117\text{mm}^2 \end{aligned}$$

Finally, area of shaded region =

$$\begin{aligned} \text{Area of the (outer rectangle - inner rectangle)} \\ &= 513\text{mm}^2 - 117\text{mm}^2 = 396\text{mm}^2 \end{aligned}$$

So, the area between the two rectangles is equal to 396 square millimeters.