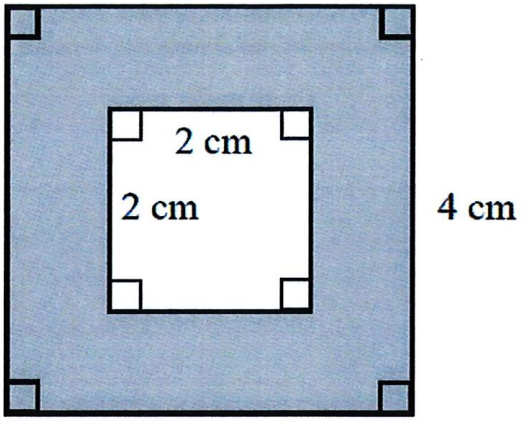
Area Worksheet – extension

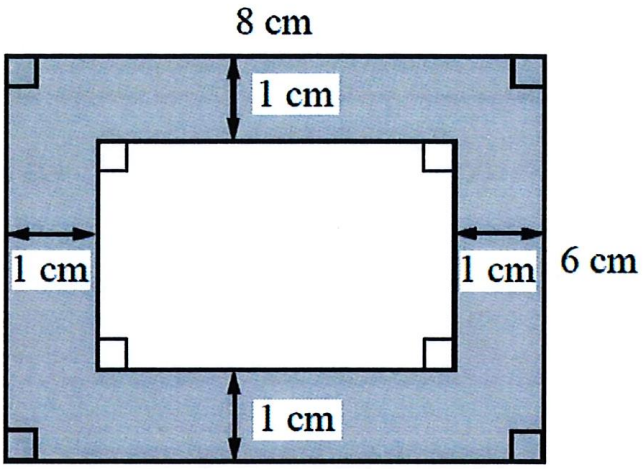
[1]

Find the shaded area in each of the diagrams below.

(a)



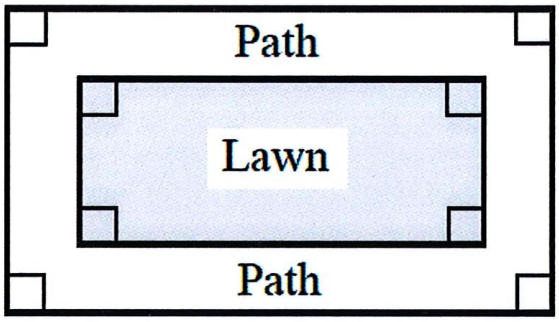
(b)



[2]

A lawn is 3 m by 5 m. A path 1 m wide is laid around the lawn.

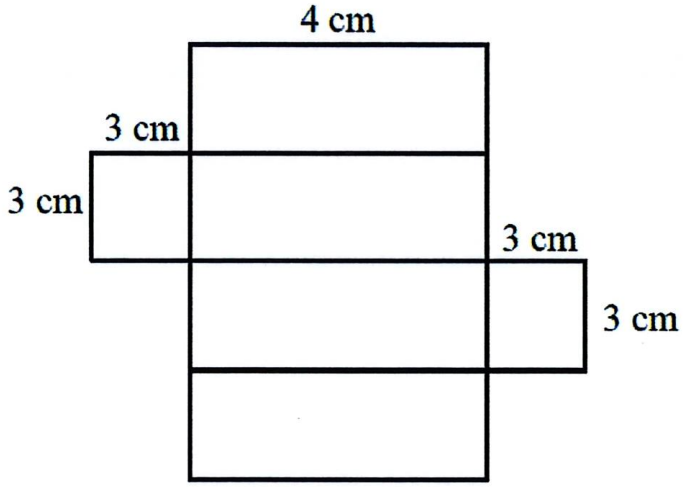
Find the area of the path.



[3]

This shape can be cut out of card and folded to form a box.

How much card is wasted if this shape is cut out of a sheet 15 cm by 20 cm?



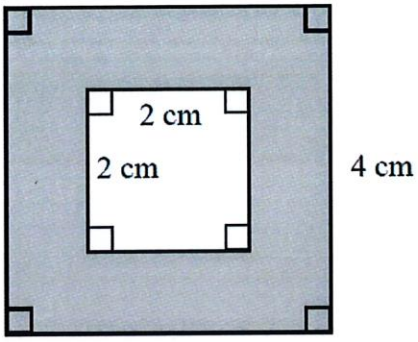
ANSWERS

Area Worksheet – extension

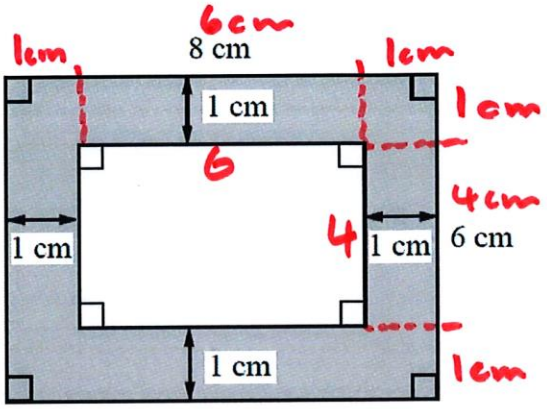
[1]

Find the shaded area in each of the diagrams below.

(a)



(b)



$A = 4 \times 4$
$A = 16 cm^2$

$A = 2 \times 2$
$A = 4 cm^2$

$16 - 4$

a) $12 cm^2$

$A = 8 \times 6$
$A = 48 cm^2$

$A = 6 \times 4$
$A = 24 cm^2$

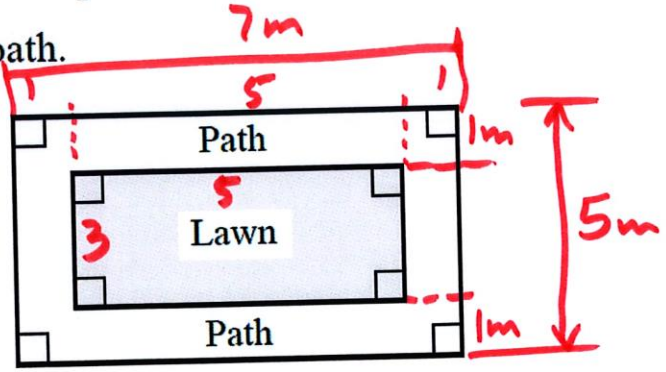
$48 cm^2 - 24 cm^2$

b) $24 cm^2$

[2]

A lawn is 3 m by 5 m. A path 1 m wide is laid around the lawn.

Find the area of the path.



Lawn ⇒ $A = 5 \times 3$
$A = 15 m^2$

Path Rect. ⇒ $A = 7 \times 5$
$A = 35 m^2$

$35 - 15$

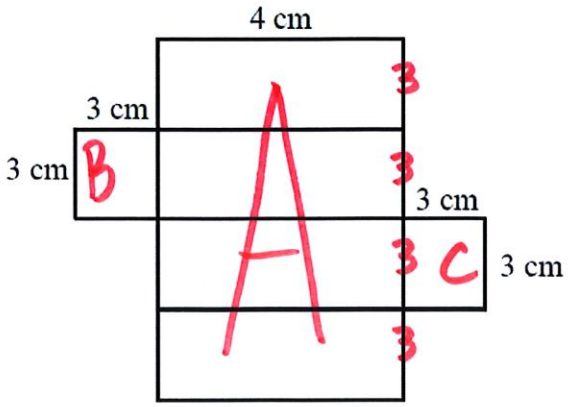
Path: $20 m^2$

ANSWERS

[3]

This shape can be cut out of card and folded to form a box.

How much card is wasted if this shape is cut out of a sheet 15 cm by 20 cm?



Area of sheet:

$A = 15 \times 20$

$A = 300 cm^2$

So, area of waste is:

AREA of SHEET − NET AREA

$300 cm^2 - 66 cm^2$

Total waste: $234 cm^2$

NET

Area of section A:

$A = 4 \times 12$

$A = 48 cm^2$

Area of section B:

$A = 3 \times 3$

$= 9 cm^2$

Area of section C:

$A = 3 \times 3$

$A = 9 cm^2$

Net total area:

$48 + 9 + 9$

$= 66 cm^2$