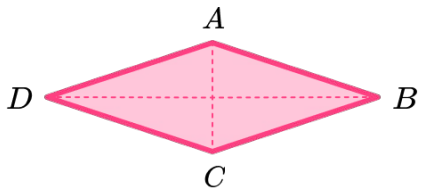
THIRD SPACE LEARNING

GCSE Exam Questions

Area of a Rhombus | Geometry & Measure

GCSE Exam Questions: Area of a Rhombus

1) **(a)** Shown on the right is a rhombus. Work out the area of the rhombus.



$AC = 13m,\ DB = 15m$

Diagram not drawn to scale.

(2)

(b) What is the area of the rhombus in square centimetres?

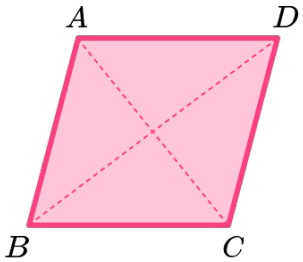
(2)

(4 marks)

2) **(a)** Mr. Perry owns a farm and is looking to make the cattle enclosure shown below.

Each cattle needs 5 square metres to move around freely.

What is the maximum number of cattle that can fit into the enclosure?



$AC = 19m,\ BD = 23m$

(4)

(b) Each cattle costs £450 to acquire.

How much would it cost to buy all the cattle that can fit?

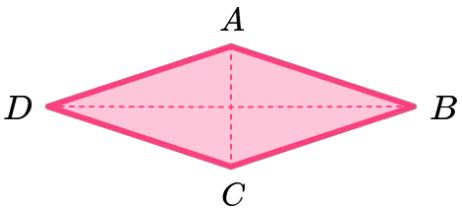
(2)

(6 marks)

GCSE Exam Questions: Area of a Rhombus

3) **(a)** In the rhombus below, AC = 10m and DB = 12m.

Find the area of the rhombus.



(2)

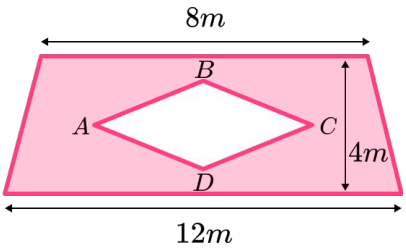
(b) Work out the perimeter of the rhombus.

(3)

(5 marks)

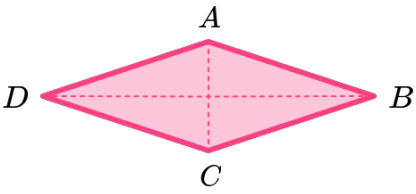
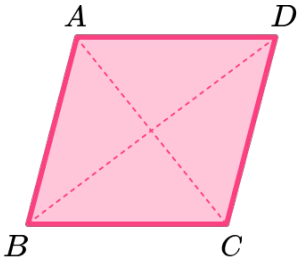
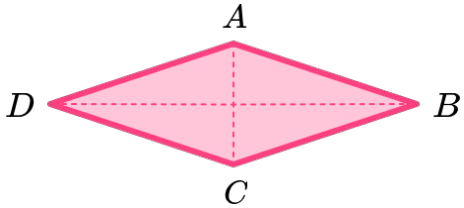
4) Work out the area of the shaded region in the diagram.

$BD = 3m$ and $AC = 6m$.

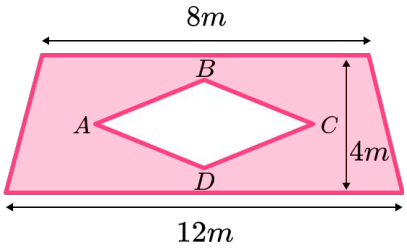


(3 marks)

GCSE Exam Questions: Area of a Rhombus Answers

	Question	Answer	Marks
1) (a)	Shown on the right is a rhombus.  $AC = 13m,\ DB = 15m$ Diagram not drawn to scale. Work out the area of the rhombus.	**(a)** $\frac{13 \times 15}{2}$ **oe** $97.5m^2$	**(1)** **(1)**
(b)	What is the area of the rhombus in square centimetres?	**(b)** 97.5 x 100 ^{2} $975\ 000cm^2$	**(1)** **(1)**
2) (a)	Mr. Perry owns a farm and is looking to make the cattle enclosure shown below. Each cattle needs 5 square metres to move around freely. What is the maximum number of cattle that can fit into the enclosure?  $AC = 19m,\ BD = 23m$	**(a)** $\frac{19 \times 23}{2}$ **oe** 218.5 **oe** $218.5 \div 5$ *or* 43.7 43 cattle	**(1)** **(1)** **(1)** **(1)**
(b)	Each cattle costs £450 to acquire. How much would it cost to buy all the cattle that can fit?	**(b)** 450 x 43 £19 350	**(1)** **(1)**
3) (a)	In the rhombus on the right $AC = 10m$, $DB = 12m$.  Find the area of the rhombus.	**(a)** $\frac{10 \times 12}{2}$ **oe** $60m^2$	**(1)** **(1)**
(b)	Work out the perimeter of the rhombus.	**(b)** $\sqrt{5^2 + 6^2}$ **or** $\sqrt{61}$ **oe** 7.81×4 $4\sqrt{61}\,m$ **or** $31.24\,m$	**(1)** **(1)** **(1)**

GCSE Exam Questions: Area of a Rhombus Answers

	Question	Answer	Marks
4)	Work out the area of the shaded region in the diagram. $BD = 3cm$ and $AC = 6cm$. 	$\frac{12 + 8}{2} \times 4 = 40$ $\frac{3 \times 6}{2} = 9$ 40 - 9 $31m^2$	**(1)** **(1)** **(1)** **(1)**

Where to go next?

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