Name:

## Exam Style Questions

## Area of a Rectangle

## Corbettmoths

Equipment needed: Calculator, pencil, ruler \& pen

## Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

## Video Tutorial

www.corbettmaths.com/contents

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## Answers and Video Solutions



1. On the grid below each square represents 1 cm by 1 cm .

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Draw a rectangle with an area of $10 \mathrm{~cm}^{2}$.
2. On the grid below each square represents 1 cm by 1 cm .

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Draw a rectangle with an area of $8 \mathrm{~cm}^{2}$.
3. The diagram shows a rectangle.


Work out the area.
Include units.
4. Shown below is a rectangle.


Work out the area.
cm ${ }^{2}$
5. The diagram shows a rectangle.

## 12 cm

The length of the rectangle is 12 cm
The area of the rectangle is $48 \mathrm{~cm}^{2}$

Find the width of the rectangle.
6.


## 4.5 cm



The rectangle has length 4.5 cm and width 2.8 cm .
Work out the area.
7. Shown below is a rectangle.

68 cm


Work out the area of the rectangle.
$\mathrm{cm}^{2}$
8. The width of a rectangle is 28 cm


The area of the rectangle is $1540 \mathrm{~cm}^{2}$

Work out the length of the rectangle.
9. Shown below is a wooden picture frame.



Work out the shaded area.
$\mathrm{cm}^{2}$
10. The rectangle below has an area of $65 \mathrm{~cm}^{2}$.


Work out the size of $y$.
11. The perimeter of a square is 28 cm .

Find the area of the square.
$\qquad$
12. The rectangle below has an area of $36 \mathrm{~cm}^{2}$

length


The rectangle has length 9 cm and width 4 cm .
Write down the length and width of two other rectangles with area $36 \mathrm{~cm}^{2}$.
Rectangle 1: length $\qquad$ cm
width $\qquad$ cm
$\qquad$ cm width cm
13. Shown below is a square and a rectangle.


Square


8 cm

Rectangle


The square and rectangle have the same area.
Find the $y$.
14. Work out the area of the rectangle below.


Include units.
15. A rectangle is 3 cm by 6 cm .


Six of the rectangles are used to make a larger rectangle.


Work out the area of the larger rectangle.
. $\mathrm{cm}^{2}$
16. The diagram shows a rectangle.


Not to scale

Work out the area.
Give your answer in centimetres squared.
17. Jessica wants to lay artificial grass in her rectangular garden.
$16 m$


Each square metre of artificial grass costs £23

How much should Jessica pay for the artificial grass?
18. On the grid below each square represents 1 cm by 1 cm .


A rectangle has an area of $36 \mathrm{~cm}^{2}$
The length of the rectangle is 4 times greater than the width of the rectangle.
Draw the rectangle on the grid.
19. Here is a rectangle with perimeter 30 cm .


Not drawn to scale

The length of the rectangle is 10 cm .

Work out the area of the rectangle.
$\qquad$
$\mathrm{cm}^{2}$
20.


Not drawn to scale

Mrs Jenkins is a chicken farmer.
Her chicken pen is 18 m long and 8 m wide.
Each chicken requires at least $3 \mathrm{~m}^{2}$.
What is the maximum number of chickens Mrs Jenkins can keep?
21. Shown below is a cuboid.


The base of the cuboid is a square and the height of the cuboid is 15 cm .

The total length of the 12 edges is 112 cm .

Find the area of the base of the cuboid.
22. Rory made a rectangular logo, 8 cm long and 5 cm wide.


## 8 cm



There are 5 identical white squares and the rest of the logo is shaded.
Find the area of the logo that is shaded.
23. Shown below is a rectangle with length 20 cm and width 10 cm .

開


Not drawn
to scale

The length of the rectangle is increased by $20 \%$.
The width of the rectangle is increased by $5 \%$.
Find the percentage increase in the area of the rectangle.
24. Rebecca draws a rectangle.

Holly enlarges the rectangle by scale factor 2.
Rebecca states "the area will be twice as larger as the original rectangle."
Show Rebecca is incorrect.
25. Shown below are rectangles $A$ and $B$.


Both rectangles have the same area.
The perimeter of rectangle $B$ is 114 cm .
The length of rectangle A is 8 times larger than its width.
Find the length of rectangle A .
26. Mr Jones is tiling his kitchen floor.

The kitchen floor measures 3 m by 2 m .
Each tile is 30 cm by 20 cm .


How many tiles does he need?
27. Jessica is tiling her bathroom wall.

The wall is 240 cm by 200 cm .
The tiles are squares with side length 20 cm .


Each box contains 15 tiles and costs £8.75.

How much will it cost Jessica for the tiles?
28. $A B C D$ is a rectangle.

比 The length of the rectangle, $A B$, is $40 \%$ longer than the width of the rectangle, AD.

A square $A E F G$ is then removed from rectangle $A B C D$ to leave a hexagon.


Given that $x: 6=3: 2$

Find the area of the hexagon.

