Name:

Exam Style Questions

Surface Area: Cube/Cuboids

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

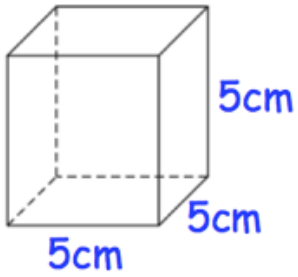
1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

Secondary

Video 310

1. Shown below is a cube of side 5cm.



Work out the total surface area of the cube.

6 x 25

150 ..... cm²

(2)

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2. Calculate the total surface area of a cube with side length 7cm.

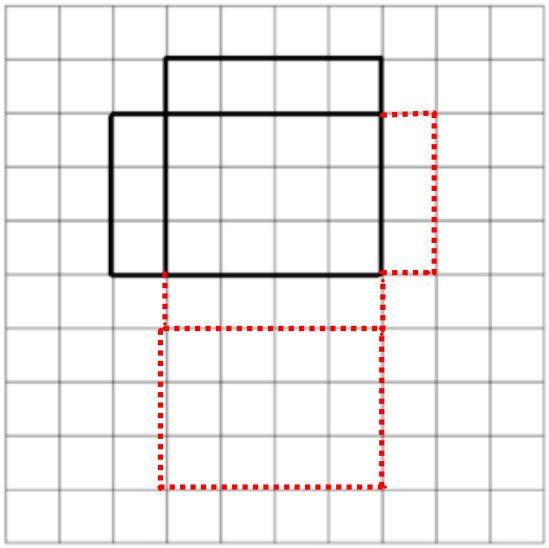
7 x 7 = 49

6 x 49

294 ..... cm²

(2)

3. Part of a net for a cuboid is shown on the centimetre grid below.



(a) Complete the net of the cuboid.

(2)

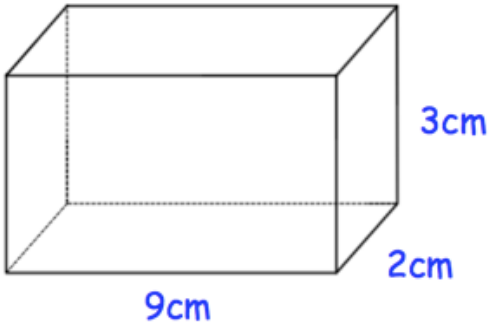
(b) Work out the total surface area of the cuboid.
State the units of your answer.

$38 cm^2$

.....

(3)

4. Shown below is solid cuboid.



Work out the total surface area of the cuboid.

$9 \times 2 = 18$

$2 \times 3 = 6$

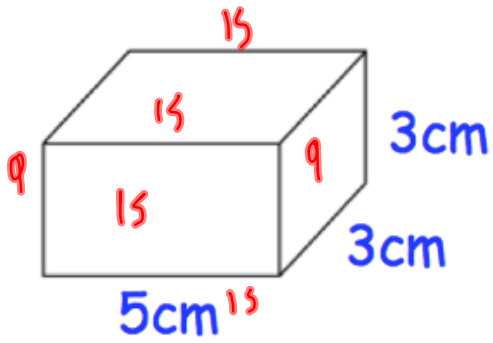
$9 \times 3 = 27$

$18 + 18 + 6 + 6 + 27 + 27$

102 .....cm²

(3)

5. Here is a cuboid.



Calculate the surface area of the cuboid.

$3 \times 3 = 9$

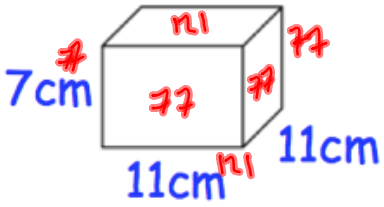
$5 \times 3 = 15$

9
9
15
15
15
+ 15

78 .....cm²

(3)

6.



Work out the surface area of this cuboid.
State the units of your answer.

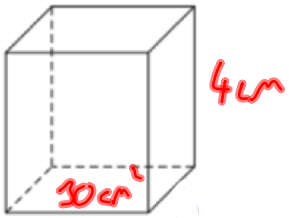
77
77
77
77
121
+ 121

550cm²

..... (3)

7. A cuboid has volume of 120cm³.
The area of the base of the cuboid is 30cm².

Work out the surface area of the cuboid.



This will vary based on the dimensions chosen for the base.

.....cm²
(3)

Base of width 3cm and length 10cm. SA = 164cm^2

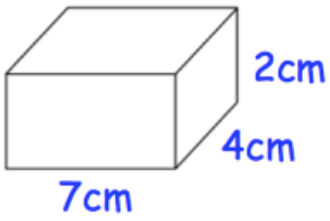
Base of width 2cm and length 15cm. SA = 196cm^2

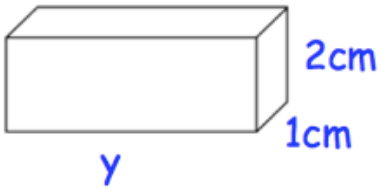
Base of width 1cm and length 30cm. SA = 308cm^2

Base of width 5cm and length 6cm. SA = 148cm^2

and so on...

8. Shown below are two cuboids.





Both cuboids have the same surface area.

Find y.

$7 \times 4 = 28$
$4 \times 2 = 8$
$2 \times 7 = 14$

28
28
8
8
14
14
+
100cm²

$2 \times 1 = 2$
$2 \times y = 2y$
$1 \times y = y$

2
2
2y
2y
y
y
+
6y + 4

$6y + 4 = 100$
$6y = 96$
$y = 16$ cm

16 .....cm
(5)