8.7 Reasoning: Measures and Geometry: 30-minute Pack

Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A rectangle measures 12 cm by 11 cm. A smaller rectangle 4 cm by 4 cm is cut out of one corner.

What is the area of the shape that is left, in square centimetres?

Answer: ___

(2)

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2 A rectangle measures 12 cm by 6 cm. A smaller rectangle 6 cm by 4 cm is cut out of one corner.

What is the area of the shape that is left, in square centimetres?

Answer: ___

(3)

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3 Poppy buys 2 T-shirts at 99p each and 1 kite at £2.37 each. Poppy pays with £5.

How much change does Poppy get?

Answer: £___

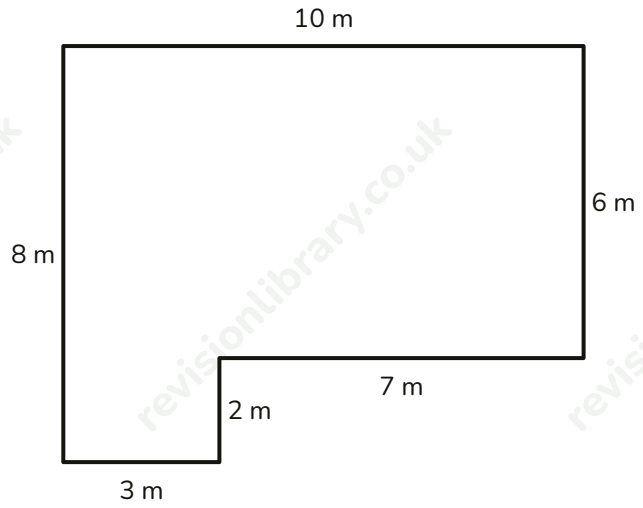
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4 An L-shaped floor has these sides in order around the shape: 10 m, 6 m, 7 m, 2 m, 3 m, 8 m.

What is the perimeter of the floor?

Answer: ___ m



(1)

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5 Points C and D are at (9, 2) and (9, 5). Each grid square is 1 unit wide.

How far is C from D?

Answer: ___ units

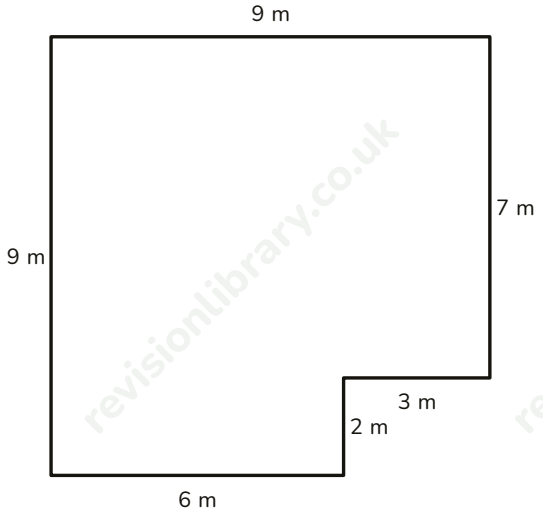
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6 An L-shaped floor has these sides in order around the shape: 9 m, 7 m, 3 m, 2 m, 6 m, 9 m.

What is the perimeter of the floor?

Answer: ___ m



(1)

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7 A packet weighs 1.35 kg. Sarah buys 3 packets. Work out the total mass in kilograms and in grams.

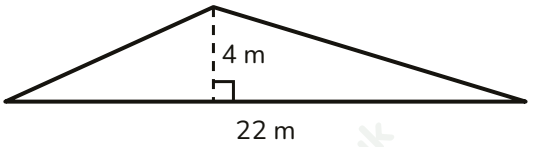
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8 A triangle has a base of 22 m and a perpendicular height of 4 m.

What is its area in square metres?

Answer: ___



(2)

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9 A regular pentagon is drawn. How many lines of symmetry does a regular pentagon have? Write the number.

(1)

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10 Point B is at (0, 4). It is reflected in the mirror line x = 1.

What are the coordinates of the image of B?

Answer: (___, ___)

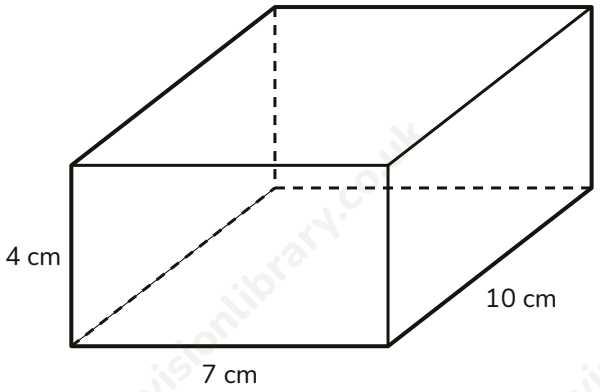
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11 A cuboid measures 7 cm by 10 cm by 4 cm.

What is its volume in cubic centimetres?

Answer: ___ cm cubed



(2)

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12 A rectangle is 1.8 m by 75 cm. Calculate its area in square metres.

(2)

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13 Use 1 inch = 2.5 cm.

A strip of card is 3 inches long. How long is it in cm?

Answer: ___ cm

(2)

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14 Point A is at (3, 3). It is translated by the vector (2, 2), where the first number is the move to the right and the second is the move up.

What are the coordinates of the image of A?

Answer: (___, ___)

(2)

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Mark scheme · 8.7 Reasoning: Measures and Geometry: 30-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

finds both areas	M1
116 square centimetres cao	A1

Answer: **116 square centimetres**

Question 2

finds both areas	M1
subtracts	M1
48 square centimetres cao	A1

Answer: **48 square centimetres**

Question 3

1.98 seen	M1
£0.65 cao	A1

Answer: **£0.65**

Question 4

36 m cao	B1

Answer: **36 m**

Question 5

3 units cao	B1

Answer: **3 units**

Question 6

36 m cao	B1

Answer: **36 m**

Question 7

Multiply 1.35 x 3 = 4.05 kg or equivalent method	M1
4.05 kg and 4050 g cao	B1

Answer: **4.05 kg; 4050 g**

Question 8

22 x 4 seen	M1
44 square metres cao	A1

Answer: **44 square metres**

Question 9

5 cao	B1

Answer: **5**

Question 10

same distance from the mirror line	M1
(2, 4) cao	A1

Answer: **(2, 4)**

Question 11

multiplies two dimensions	M1
280 cm cubed cao	A1

Answer: **280 cm cubed**

Question 12

Convert 75 cm to 0.75 m and multiply 1.8 x 0.75 seen	M1
1.35 m^2 cao	B1

Answer: **1.35**

Question 13

multiplies by the conversion	M1
7.5 cm cao	A1

Answer: **7.5 cm**

Question 14

adds the vector	M1
(5, 5) cao	A1

Answer: **(5, 5)**

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