

4 The diagram shows a rectangle and a diagonal of the rectangle.

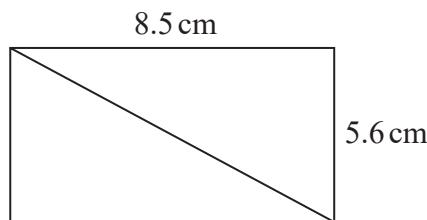


Diagram **NOT**
accurately drawn

Work out the length of the diagonal of the rectangle.
Give your answer correct to 1 decimal place.

..... cm

(Total for Question 4 is 3 marks)

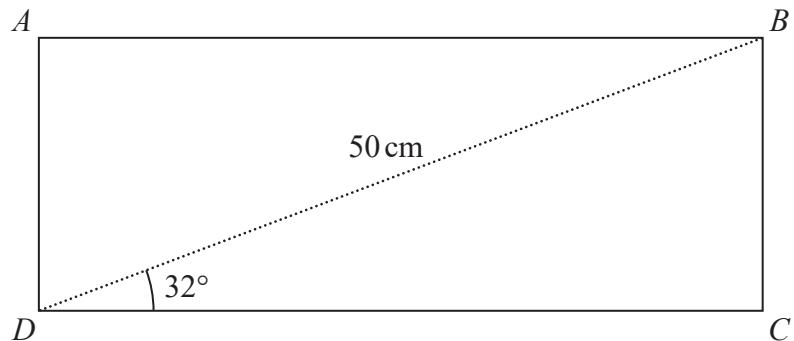
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9 The diagram shows a rectangular sheet of metal $ABCD$



$$BD = 50 \text{ cm} \text{ and angle } BDC = 32^\circ$$

Nasser joins side AD to side BC to form a cylinder.

BC is the height of the cylinder.

DC is the circumference of the cross section of the cylinder.

Work out the volume, in cm^3 , of the cylinder.

Give your answer correct to 3 significant figures.

..... cm^3

(Total for Question 9 is 6 marks)



8 The diagram shows an isosceles triangle.

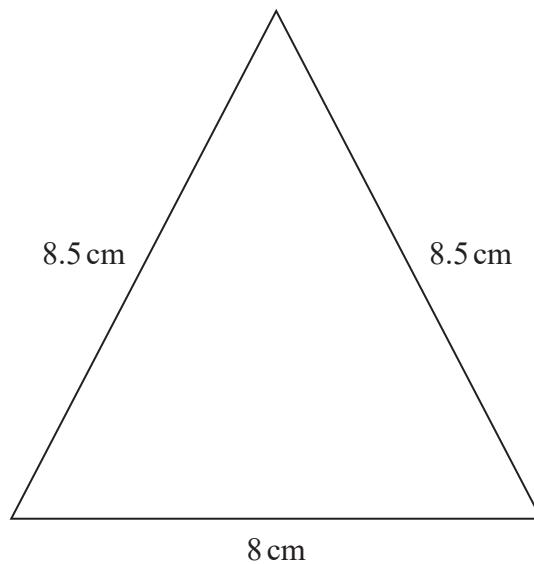


Diagram **NOT**
accurately drawn

Work out the area of the triangle.

..... cm^2

(Total for Question 8 is 4 marks)



7 The diagram shows isosceles triangle ABC .

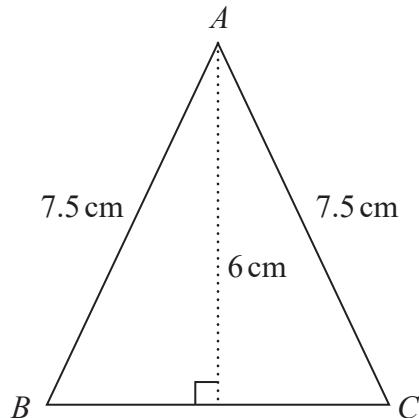


Diagram **NOT**
accurately drawn

$$AB = AC = 7.5 \text{ cm}.$$

The height of the triangle is 6 cm.

Calculate the area of the triangle.

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..... cm^2

(Total for Question 7 is 4 marks)



9 The diagram shows an isosceles triangle ABC

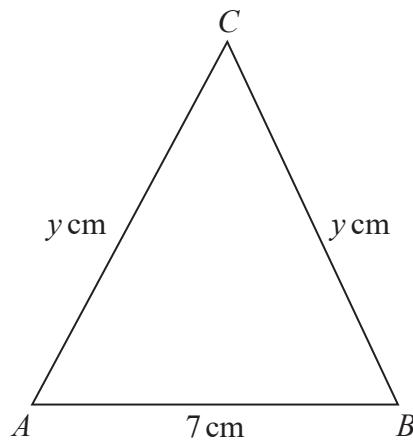


Diagram **NOT**
accurately drawn

$$AB = 7 \text{ cm} \quad AC = BC = y \text{ cm}$$

The area of the triangle is 42 cm^2

Work out the value of y

$$y = \dots$$

(Total for Question 9 is 4 marks)



10 The diagram shows an isosceles triangle, with base length 24 cm.

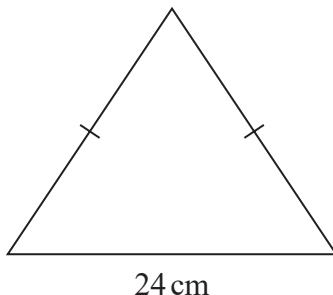


Diagram **NOT**
accurately drawn

The perimeter of the triangle is 54 cm.

Work out the area of the triangle.

..... cm^2

(Total for Question 10 is 5 marks)



8 The diagram shows an isosceles triangle.

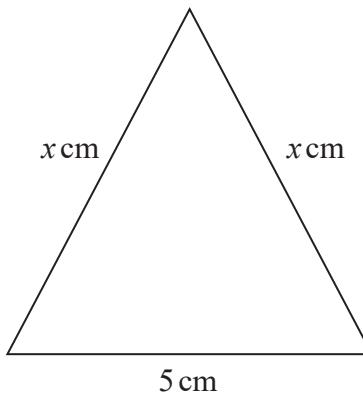


Diagram **NOT**
accurately drawn

The area of the triangle is 12 cm^2

Work out the perimeter of the triangle.

Give your answer correct to 3 significant figures.

..... cm

(Total for Question 8 is 4 marks)



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10 Here is isosceles triangle ABC .

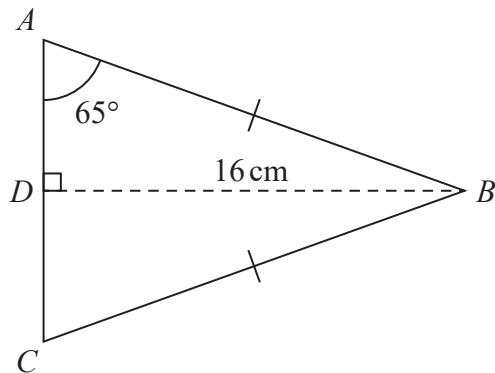


Diagram NOT
accurately drawn

D is the midpoint of AC and $DB = 16\text{ cm}$.

Angle $DAB = 65^\circ$

Work out the perimeter of triangle ABC .

Give your answer correct to one decimal place.

..... cm

(Total for Question 10 is 4 marks)



P 6 6 2 9 7 A 0 1 1 2 8

9 The diagram shows isosceles triangle ABC

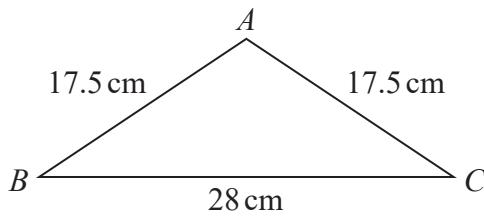


Diagram **NOT**
accurately drawn

$$AB = AC = 17.5 \text{ cm}$$

$$BC = 28 \text{ cm}$$

Calculate the area of triangle ABC

..... cm^2

(Total for Question 9 is 4 marks)



11 The diagram shows a roof support.

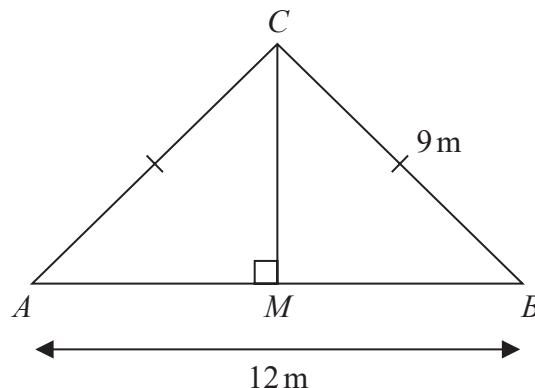


Diagram NOT
accurately drawn

The roof support is made from four lengths of wood, AB , AC , BC and MC

$$AC = BC = 9 \text{ m} \quad AB = 12 \text{ m}$$

$$\text{angle } AMC = 90^\circ$$

Lewis is going to buy lengths of wood to make the roof support.

The wood costs 21.50 euros per metre.

Each length of wood he buys has to be a whole number of metres.

Work out the total cost of the wood Lewis needs to buy.

Show your working clearly.

..... euros

(Total for Question 11 is 4 marks)



12

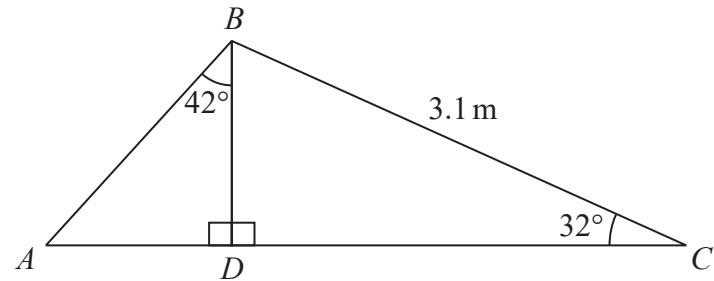


Diagram **NOT**
accurately drawn

Calculate the length of AB .

Show your working clearly.

Give your answer correct to 3 significant figures.

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..... m

(Total for Question 12 is 5 marks)



P 6 0 2 6 1 A 0 9 2 4

12 ABC is a right-angled triangle.
 D is a point on BC

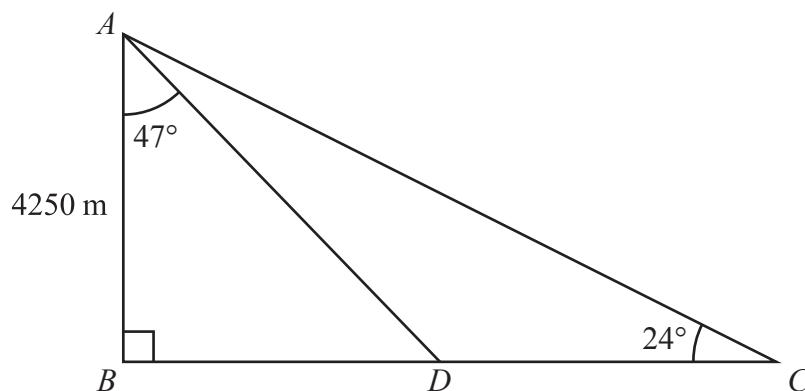


Diagram NOT
accurately drawn

$$AB = 4250 \text{ m} \quad \text{angle } BAD = 47^\circ \quad \text{angle } BCA = 24^\circ$$

Work out the length of DC

Give your answer correct to the nearest integer.

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..... m

(Total for Question 12 is 4 marks)



2 The diagram shows triangle ABC and triangle ECD

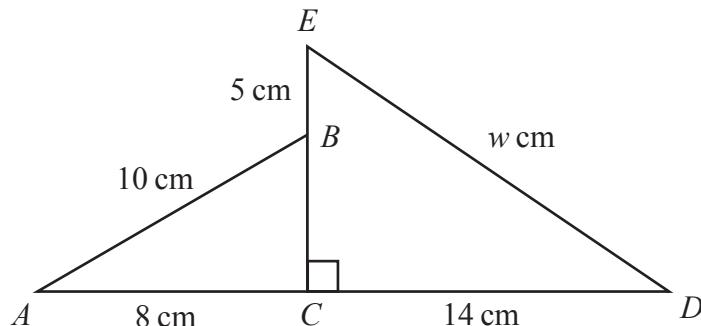


Diagram NOT
accurately drawn

ACD and EBC are straight lines.

$$AB = 10 \text{ cm} \quad AC = 8 \text{ cm} \quad EB = 5 \text{ cm} \quad CD = 14 \text{ cm} \quad ED = w \text{ cm}$$

Work out the value of w

Give your answer correct to one decimal place.

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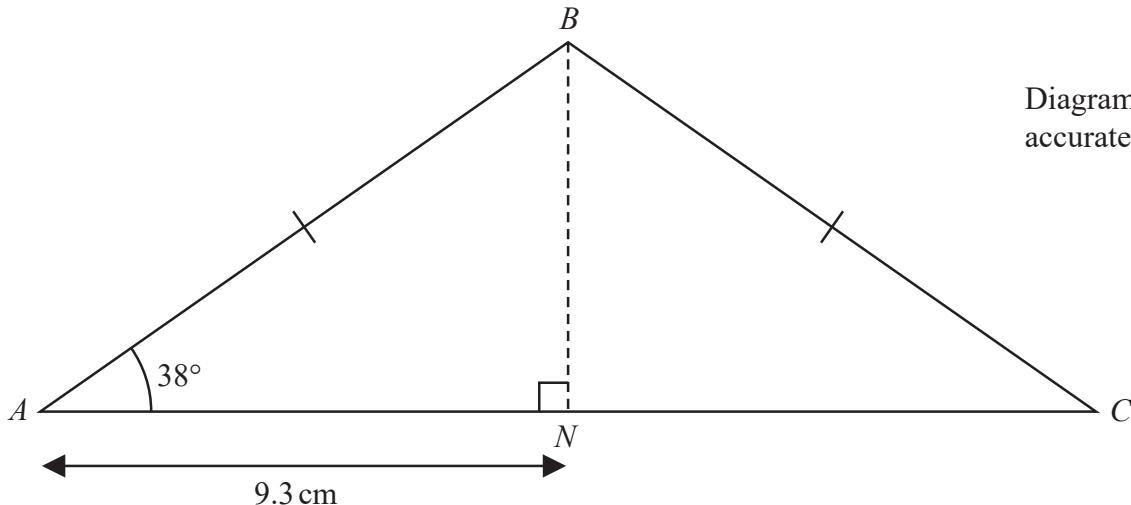
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$$w = \dots$$

(Total for Question 2 is 4 marks)



10 ABC is an isosceles triangle with $BA = BC$.



N is the point on AC such that $AN = 9.3$ cm and BN is perpendicular to AC .

Work out the perimeter of triangle ABC .

Give your answer correct to 3 significant figures.

..... cm

(Total for Question 10 is 4 marks)



10 Here is triangle ABC

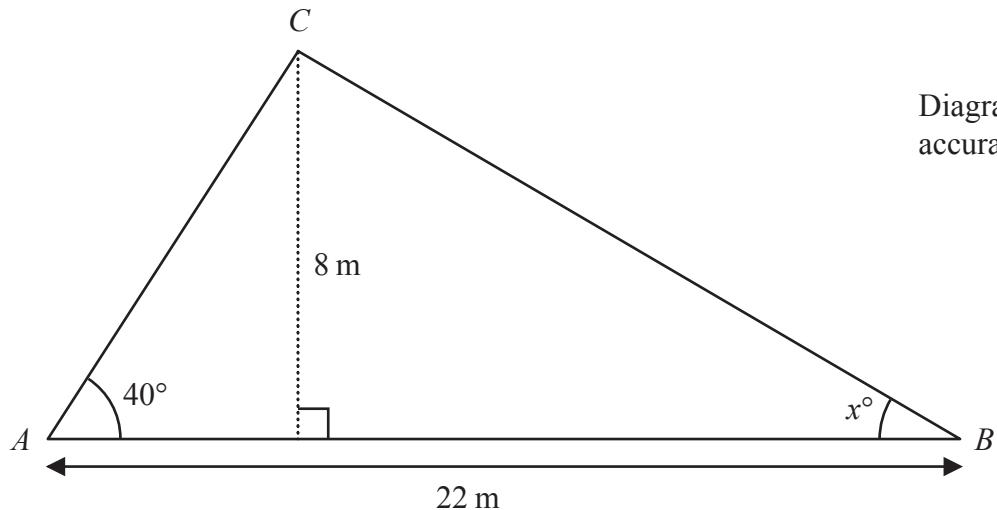


Diagram **NOT**
accurately drawn

Work out the value of x
Give your answer correct to one decimal place.
Show your working clearly.

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$x = \dots$

(Total for Question 10 is 5 marks)



11 The diagram shows a quadrilateral $ABCD$

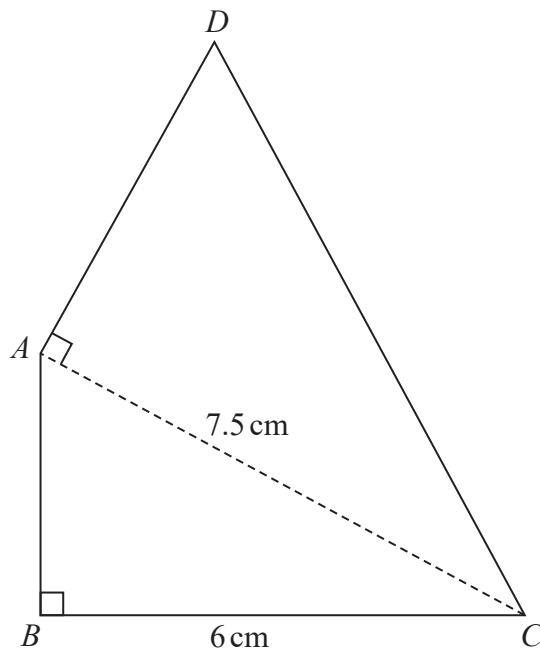


Diagram **NOT**
accurately drawn

In the diagram, ABC and DAC are right-angled triangles.

$$BC = 6 \text{ cm} \quad AC = 7.5 \text{ cm}$$

The area of quadrilateral $ABCD$ is 31.5 cm^2

Work out the length of AD

..... cm

(Total for Question 11 is 6 marks)



12 The diagram shows right-angled triangle ABD

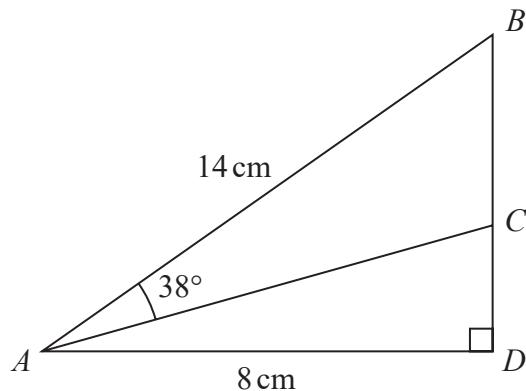


Diagram **NOT**
accurately drawn

$$AB = 14 \text{ cm} \quad AD = 8 \text{ cm}$$

C is the point on BD such that angle $BAC = 38^\circ$

Work out the length of CD

Give your answer correct to 3 significant figures.

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..... cm

(Total for Question 12 is 4 marks)



15 The diagram shows two right-angled triangles, DEF and EFG .

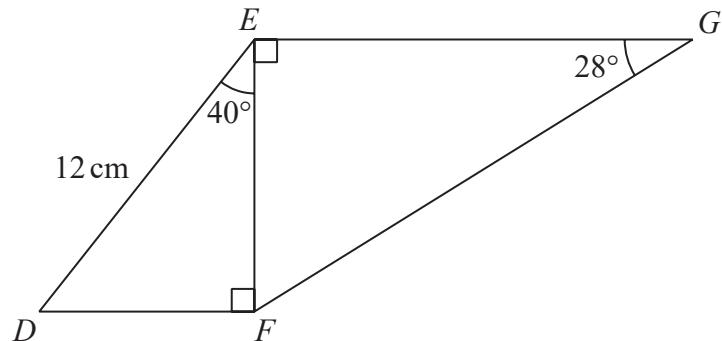


Diagram **NOT**
accurately drawn

Work out the length of EG .

Give your answer correct to 3 significant figures.

..... cm

(Total for Question 15 is 4 marks)



10 Here is triangle ABD .

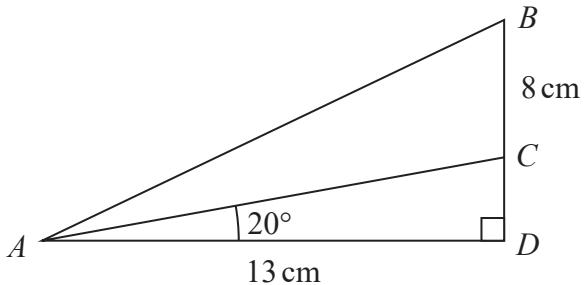


Diagram **NOT**
accurately drawn

The point C lies on BD .

$$AD = 13 \text{ cm} \quad BC = 8 \text{ cm} \quad \text{angle } ADB = 90^\circ \quad \text{angle } CAD = 20^\circ$$

Calculate the size of angle BAC .

Give your answer correct to 1 decimal place.

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.....

(Total for Question 10 is 5 marks)



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9 The diagram shows a right-angled triangle.

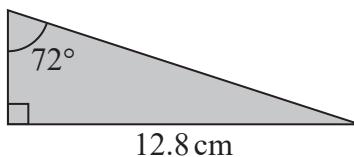


Diagram NOT
accurately drawn

Five of these triangles are put together to make a shape.

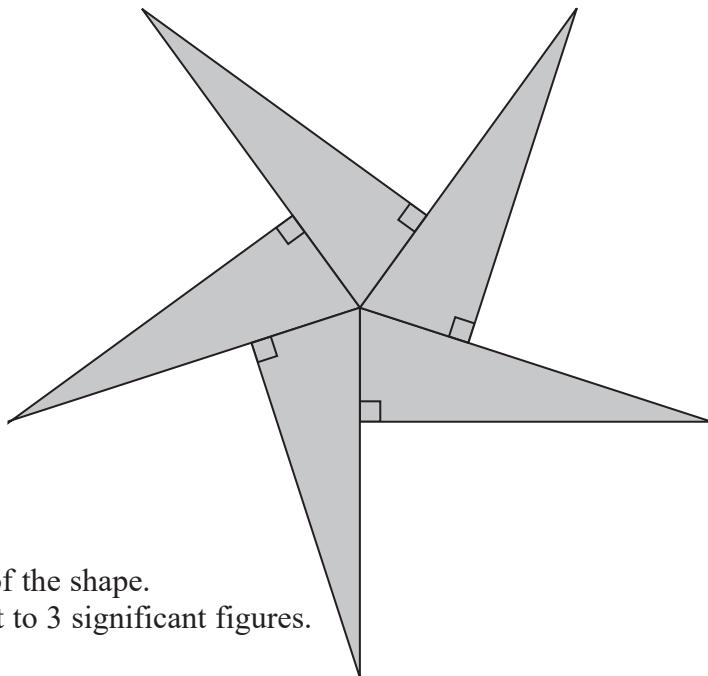


Diagram NOT
accurately drawn

Calculate the perimeter of the shape.
Give your answer correct to 3 significant figures.

..... cm

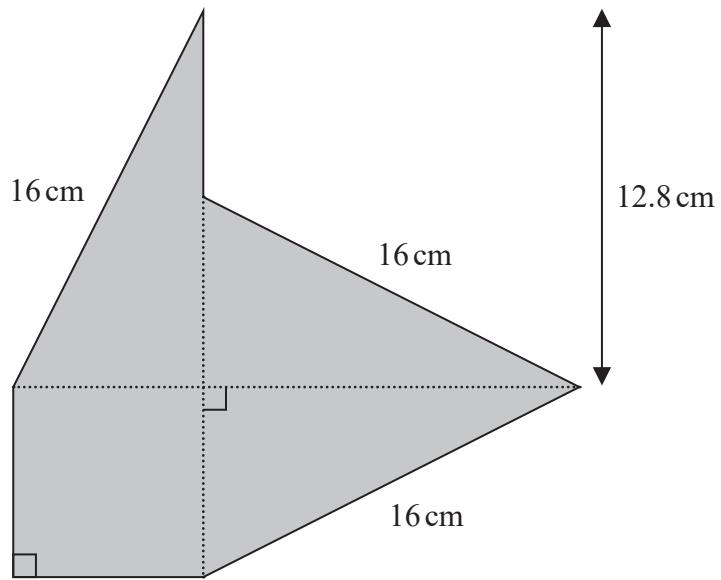
(Total for Question 9 is 5 marks)



P 5 4 6 9 4 A 0 1 1 2 4

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3 The shaded shape is made using three identical right-angled triangles and a square.



Work out the perimeter of the shaded shape.

..... cm

(Total for Question 3 is 4 marks)



P 6 8 7 2 7 A 0 5 3 2