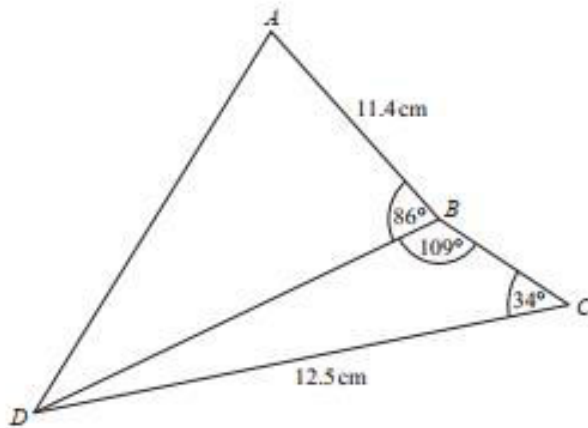


LENGTH OF SIDE

Pearson Edexcel - Tuesday 12 June 2018 - Paper 3 (Calculator) Higher Tier

1.

17



Work out the length of AD .
Give your answer correct to 3 significant figures.

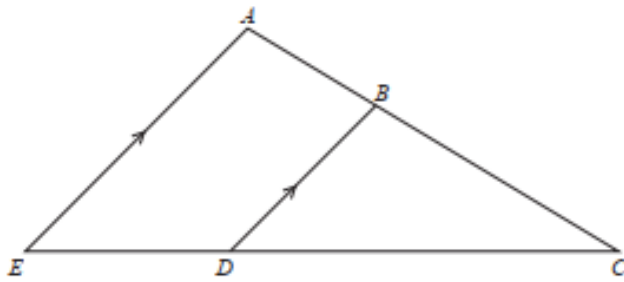
..... cm

(Total for Question 17 is 5 marks)

Pearson Edexcel - Thursday 8 June 2017 - Paper 2 (Calculator) Higher Tier

2.

5



ABC and EDC are straight lines.
 EA is parallel to DB .

$EC = 8.1$ cm.
 $DC = 5.4$ cm.
 $DB = 2.6$ cm.

(a) Work out the length of AE .

..... cm
(2)

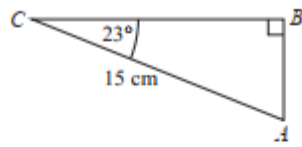
$AC = 6.15$ cm.

(b) Work out the length of AB .

..... cm
(2)

(Total for Question 5 is 4 marks)

7 $\triangle ABC$ is a right-angled triangle.



Calculate the length of AB .
Give your answer correct to 3 significant figures.

.....cm

(Total for Question 7 is 2 marks)

Pearson Edexcel - Tuesday 13 June 2017 - Paper 3 (Calculator) Higher Tier

4.

8 A square, with sides of length x cm, is inside a circle.
Each vertex of the square is on the circumference of the circle.

The area of the circle is 49 cm^2 .

Work out the value of x .
Give your answer correct to 3 significant figures.

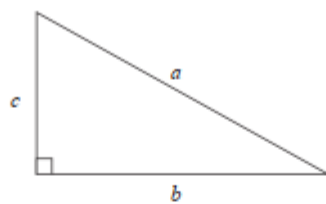
.....

(Total for Question 8 is 4 marks)

Pearson Edexcel - Specimen Papers Set 2 - Paper 2 (Calculator) Higher Tier

5.

17



a is 8.3 cm correct to the nearest mm
 b is 6.1 cm correct to the nearest mm

Calculate the upper bound for c .
You must show your working.

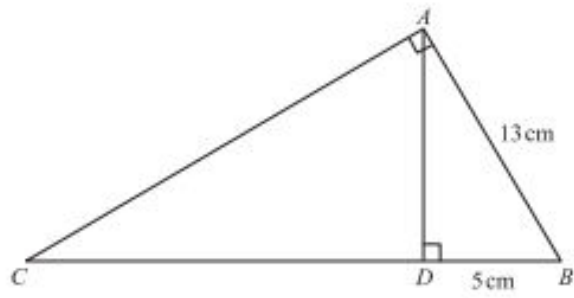
..... cm

(Total for Question 17 is 4 marks)

Pearson Edexcel - Specimen Papers Set 1 - Paper 2 (Calculator) Higher Tier

6.

14 ABC and ABD are two right-angled triangles.



Angle $BAC = \text{angle } ADB = 90^\circ$

$AB = 13 \text{ cm}$

$DB = 5 \text{ cm}$

Work out the length of CB .

..... cm

(Total for Question 14 is 3 marks)

9 The diagram shows two vertical posts, AB and CD , on horizontal ground.



$AB = 1.7\text{ m}$
 $CD : AB = 1.5 : 1$

The angle of elevation of C from A is 52°

Calculate the length of BD .
Give your answer correct to 3 significant figures.

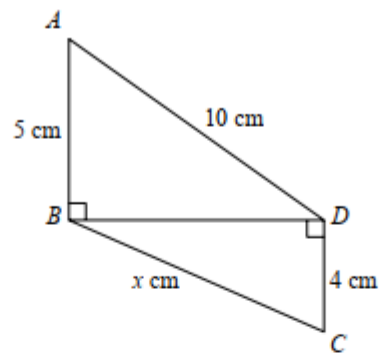
.....m

(Total of Question 9 is 4 marks)

Pearson Edexcel - Sample Paper 2 - (Calculator) Higher Tier

8.

- 6 Triangles ABD and BCD are right-angled triangles.



Work out the value of x .
Give your answer correct to 2 decimal places.

(Total for Question 6 is 4 marks)

- 16 $ABCD$ is a trapezium.
 $STUV$ is a rectangle.

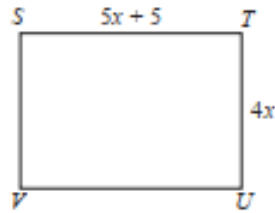
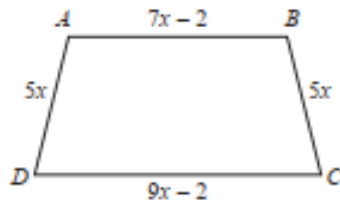


Diagram **NOT**
accurately drawn

All measurements are in centimetres.

The two shapes have the same perimeter.

Work out the length of ST .

..... cm

(Total for Question 16 is 5 marks)

Pearson Edexcel - Friday 6 November 2015 - Paper 2 (Calculator) Higher Tier

10.

15

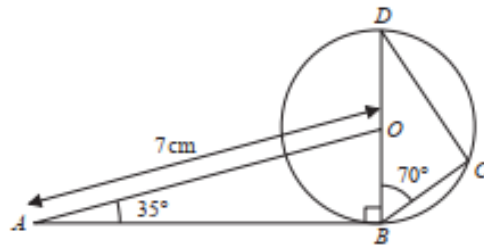


Diagram NOT
accurately drawn

B , C and D are points on the circumference of a circle, centre O .
 BOD is a diameter of the circle.

$AO = 7$ cm Angle $ABO = 90^\circ$ Angle $OAB = 35^\circ$ Angle $DBC = 70^\circ$

*(a) Explain why angle BCD is 90°

.....
.....

(1)

(b) Calculate the length of BC .
Give your answer correct to 3 significant figures.

..... cm
(4)

(Total for Question 15 is 5 marks)

24 ABC is a triangle.

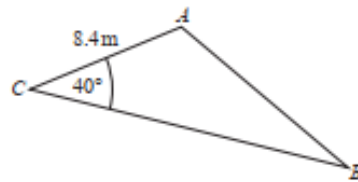


Diagram **NOT**
accurately drawn

$AC = 8.4\text{m}$
Angle $ACB = 40^\circ$

The area of the triangle = 100m^2 .

Work out the length of AB .
Give your answer correct to 3 significant figures.
You must show all your working.

.....m

(Total for Question 24 is 5 marks)

Pearson Edexcel - Thursday 4 June 2015 - Paper 1 (Non-Calculator) Higher Tier

12.

5 Jane makes cheese.

The cheese is in the shape of a cuboid.

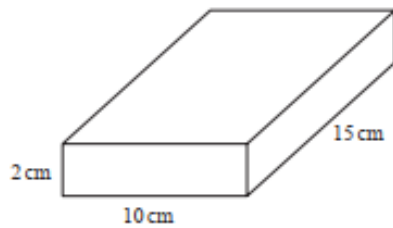


Diagram NOT
accurately drawn

Jane is going to make a new cheese.

The new cheese will also be in the shape of a cuboid.

The cross section of the cuboid will be a 5 cm by 5 cm square.

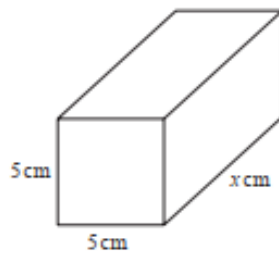


Diagram NOT
accurately drawn

Jane wants the new cuboid to have the same volume as the 2 cm by 10 cm by 15 cm cuboid.

Work out the value of x .

(Total for Question 5 is 3 marks)

19

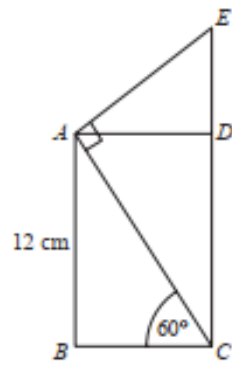


Diagram NOT
accurately drawn

$ABCD$ is a rectangle.
 CDE is a straight line.

$AB = 12$ cm
Angle $ACB = 60^\circ$
Angle $EAC = 90^\circ$

Calculate the length of CE .
You must show all your working.

..... cm

(Total for Question 19 is 4 marks)

Pearson Edexcel - Friday 7 November 2014 - Paper 2 (Calculator) Higher Tier

14.

16 The diagram represents a metal frame.

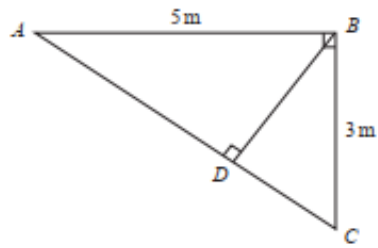


Diagram NOT
accurately drawn

The frame is made from four metal bars, AB , AC , BC and BD .

Angle $ABC = \text{angle } ADB = 90^\circ$

$AB = 5 \text{ m}$

$BC = 3 \text{ m}$

Work out the total length of the four metal bars of the frame.
Give your answer correct to 3 significant figures.

..... m

(Total for Question 16 is 5 marks)

Pearson Edexcel - Friday 7 November 2014 - Paper 2 (Calculator) Higher Tier

15.

21

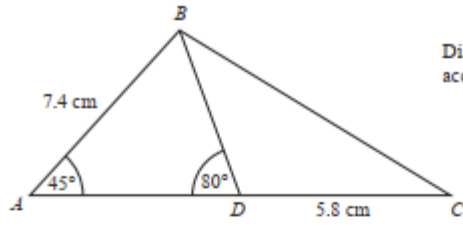


Diagram NOT
accurately drawn

ABC is a triangle.
 D is a point on AC .
Angle $BAD = 45^\circ$
Angle $ADB = 80^\circ$
 $AB = 7.4$ cm
 $DC = 5.8$ cm

Work out the length of BC .
Give your answer correct to 3 significant figures.

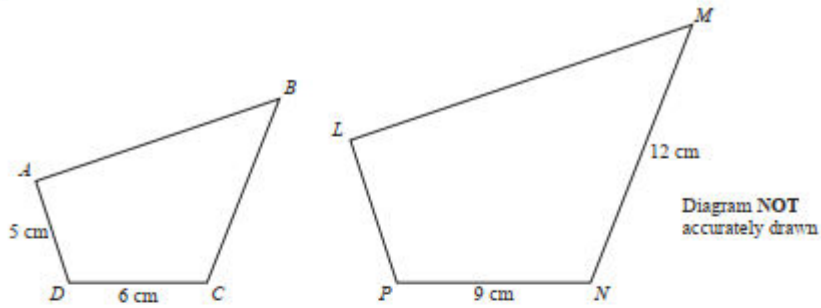
..... cm

(Total for Question 21 is 5 marks)

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

16.

17



Quadrilaterals $ABCD$ and $LMNP$ are mathematically similar.

Angle A = angle L
Angle B = angle M
Angle C = angle N
Angle D = angle P

(a) Work out the length of LP .

..... cm
(2)

(b) Work out the length of BC .

..... cm
(2)

(Total for Question 17 is 4 marks)

22 The diagram shows a trapezium.

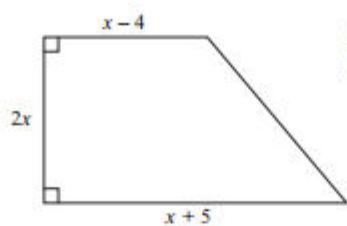


Diagram **NOT**
accurately drawn

All the measurements are in centimetres.

The area of the trapezium is 351 cm^2 .

(a) Show that $2x^2 + x - 351 = 0$

(2)

(b) Work out the value of x .

(3)

(Total for Question 22 is 5 marks)

24 The diagram shows a large tin of pet food in the shape of a cylinder.

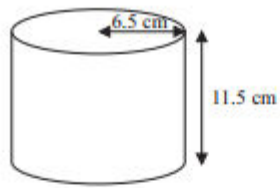


Diagram NOT
accurately drawn

The large tin has a radius of 6.5 cm and a height of 11.5 cm.

A pet food company wants to make a new size of tin.

The new tin will have a radius of 5.8 cm.
It will have the same volume as the large tin.

Calculate the height of the new tin.
Give your answer correct to one decimal place.

..... cm

(Total for Question 24 is 3 marks)

26 The diagram shows triangle LMN .

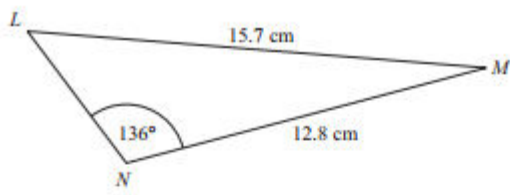


Diagram NOT
accurately drawn

Calculate the length of LN .
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 26 is 5 marks)

20

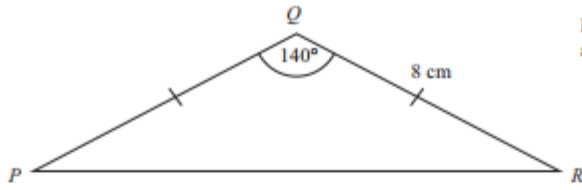


Diagram NOT
accurately drawn

Calculate the length of PR .
Give your answer correct to 3 significant figures.

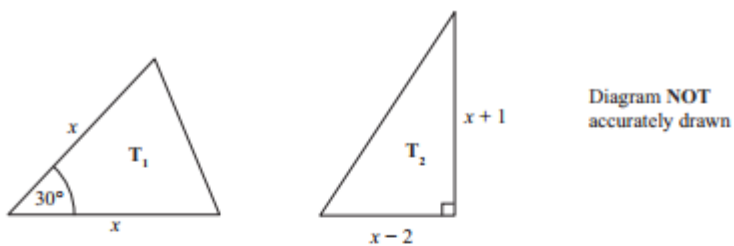
..... cm

(Total for Question 20 is 3 marks)

Pearson Edexcel - Monday 4 March 2013 - Paper 2 (Calculator) Higher Tier

21.

25 Here are two triangles T_1 and T_2 .



The lengths of the sides are in centimetres.

The area of triangle T_1 is equal to the area of triangle T_2 .

Work out the value of x , giving your answer in the form $a + \sqrt{b}$ where a and b are integers.

(Total for Question 25 is 5 marks)

23

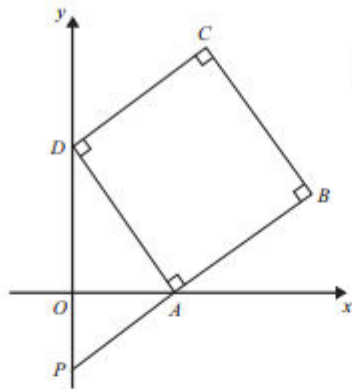


Diagram NOT
accurately drawn

$ABCD$ is a square.

P and D are points on the y -axis.

A is a point on the x -axis.

PAB is a straight line.

The equation of the line that passes through the points A and D is $y = -2x + 6$

Find the length of PD .

(Total for Question 23 is 4 marks)

15 $ABCD$ is a trapezium.

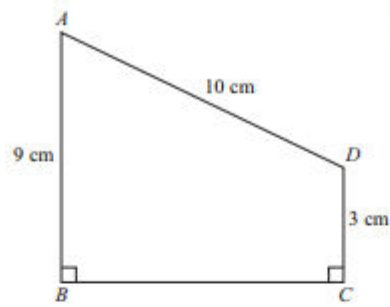


Diagram NOT
accurately drawn

$$AD = 10 \text{ cm}$$

$$AB = 9 \text{ cm}$$

$$DC = 3 \text{ cm}$$

$$\text{Angle } ABC = \text{angle } BCD = 90^\circ$$

Calculate the length of AC .

Give your answer correct to 3 significant figures.

..... cm

(Total for Question 15 is 5 marks)

17

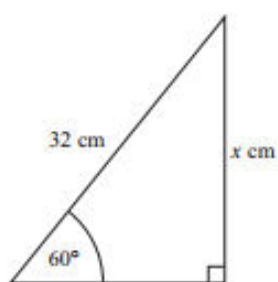


Diagram NOT
accurately drawn

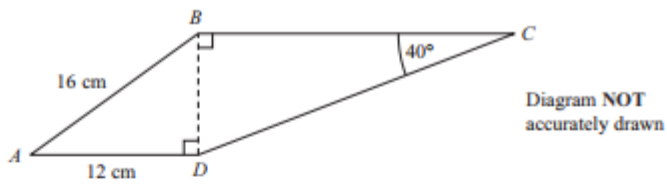
Calculate the value of x .
Give your answer correct to 3 significant figures.

(Total for Question 17 is 3 marks)

Pearson Edexcel - Wednesday 13 June 2012 - Paper 2 (Calculator) Higher Tier

25.

18 The diagram shows a quadrilateral $ABCD$.



$AB = 16$ cm.
 $AD = 12$ cm.
Angle $BCD = 40^\circ$.
Angle $ADB = \text{angle } CBD = 90^\circ$.

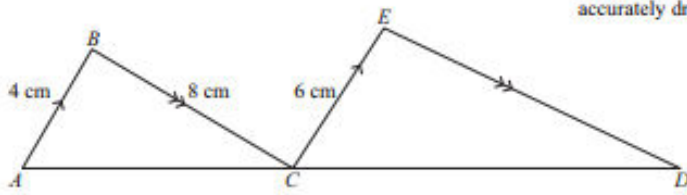
Calculate the length of CD .
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 18 is 5 marks)

17.

Diagram NOT
accurately drawn



ACD is a straight line.
 AB is parallel to CE .
 BC is parallel to ED .

$AB = 4$ cm.
 $CE = 6$ cm.
 $BC = 8$ cm.

(a) Calculate the length of ED .

..... cm
(2)

$AD = 25$ cm.

(b) Calculate the length of AC .

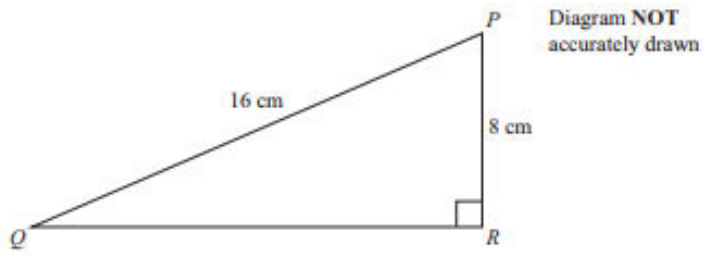
..... cm
(2)

(Total 4 marks)

Pearson Edexcel - Monday 5 March 2012 - Paper 4 (Calculator) Higher Tier

27.

7.



PQR is a right-angled triangle.

$PQ = 16$ cm.

$PR = 8$ cm.

Calculate the length of QR .

Give your answer correct to 2 decimal places.

..... cm

(Total 3 marks)

17.

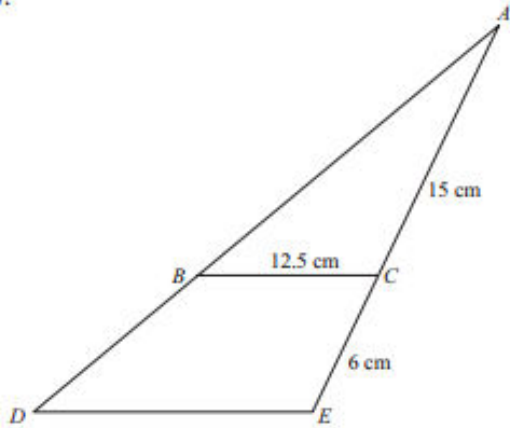


Diagram NOT
accurately drawn

Triangle ABC is similar to triangle ADE .
 $AC = 15$ cm.
 $CE = 6$ cm.
 $BC = 12.5$ cm.

Work out the length of DE .

..... cm

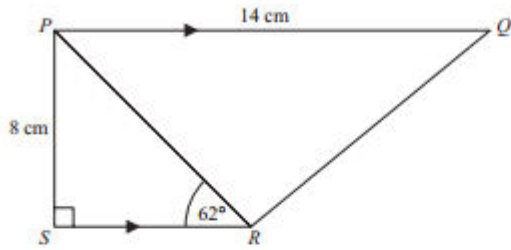
(Total 3 marks)

Pearson Edexcel - Monday 14 November 2011 - Paper 4 (Calculator) Higher Tier

29.

20.

Diagram NOT
accurately drawn



$PQRS$ is a trapezium.
 PQ is parallel to SR .
Angle $PSR = 90^\circ$.
Angle $PRS = 62^\circ$.
 $PQ = 14$ cm.
 $PS = 8$ cm.

- (a) Work out the length of PR .
Give your answer correct to 3 significant figures.

..... cm
(3)

- (b) Work out the length of QR .
Give your answer correct to 3 significant figures.

..... cm
(4)

(Total 7 marks)

Pearson Edexcel - Friday 10 June 2011 - Paper 4 (Calculator) Higher Tier

30.

25.

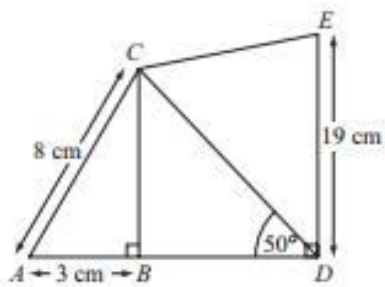


Diagram NOT
accurately drawn

$AC = 8 \text{ cm.}$

$AB = 3 \text{ cm.}$

$DE = 19 \text{ cm.}$

$\text{Angle } ABC = \text{angle } CBD = \text{angle } BDE = 90^\circ.$

$\text{Angle } BDC = 50^\circ.$

(a) Calculate the length of CD .

Give your answer correct to 3 significant figures.

..... cm
(4)

(b) Calculate the length of CE .

Give your answer correct to 3 significant figures.

..... cm
(3)

(Total 7 marks)

31.

21.

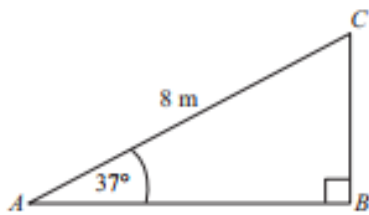


Diagram **NOT**
accurately drawn

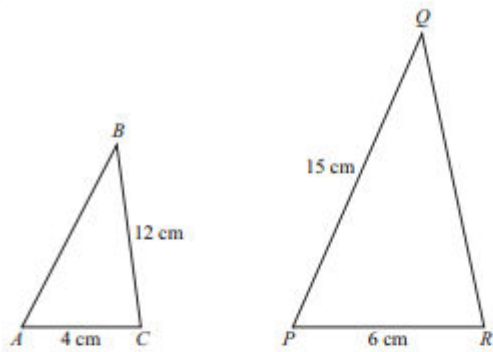
ABC is a right-angled triangle.
AC = 8 m.
Angle *CAB* = 37°.

Calculate the length of *AB*.
Give your answer correct to 3 significant figures.

..... m
(Total 3 marks)

32.

18.



Diagrams NOT
accurately drawn

Triangles ABC and PQR are mathematically similar.

Angle A = angle P .

Angle B = angle Q .

Angle C = angle R .

AC = 4 cm.

BC = 12 cm.

PR = 6 cm.

PQ = 15 cm.

(a) Work out the length of QR .

.....cm
(2)

(b) Work out the length of AB .

.....cm
(2)

(Total 4 marks)

Pearson Edexcel - Friday 11 June 2010 - Paper 4 (Calculator) Higher Tier

33.

20.

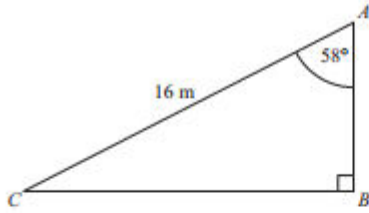


Diagram NOT accurately drawn

ABC is a right-angled triangle.
 $AC = 16$ m.
 Angle $CAB = 58^\circ$

Calculate the length of AB .
 Give your answer correct to 3 significant figures.

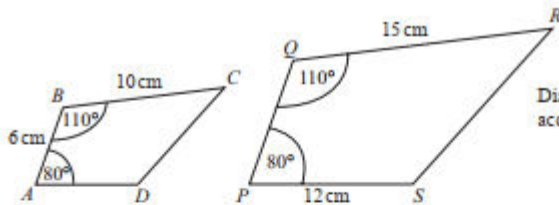
..... m

(Total 3 marks)

Pearson Edexcel - Tuesday 10 November 2009 - Paper 4 (Calculator) Higher Tier

34.

22.



Diagrams NOT accurately drawn

$ABCD$ and $PQRS$ are mathematically similar.

(a) Find the length of PQ .

..... cm
(2)

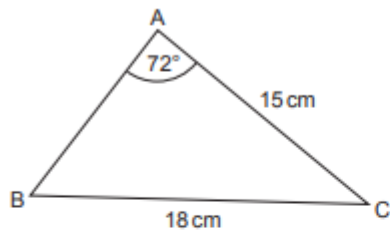
(b) Find the length of AD .

..... cm
(2)

(Total 4 marks)

35.

14 The diagram shows triangle ABC.



Not to scale

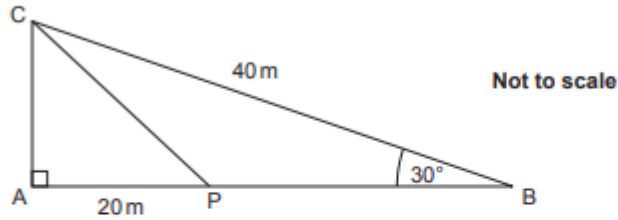
AC = 15 cm, BC = 18 cm and angle BAC = 72°.

Calculate length AB, giving your answer correct to 3 significant figures.
Show your working.

..... cm [6]

36.

- 13 In the diagram, ABC is a right-angled triangle.
P is a point on AB.
BC = 40m, AP = 20m and angle ABC = 30°.



- (a) Show that $AC = 20$ m.

[3]

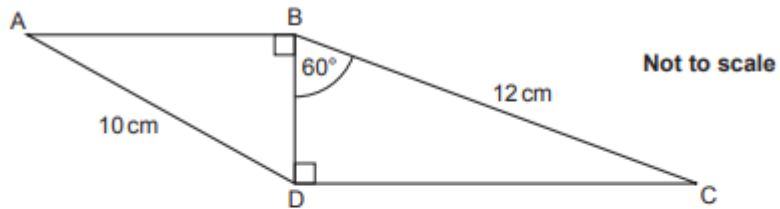
- (b) Find the length of PB.
Give your answer in the form $a(\sqrt{3} - b)$, where a and b are integers.

(b) [5]

OCR GSCE – Thursday 7 June 2018 – Paper 5 (Non - Calculator) Higher Tier

37.

- 11 The diagram shows two right-angled triangles ABD and BCD, sharing a common side BD. AD = 10 cm, BC = 12 cm and angle DBC = 60° .

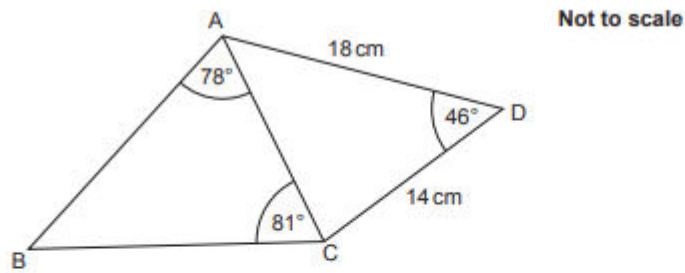


Work out the length of AB.

..... cm [6]

38.

17 ABC and ACD are triangles.



(a) Show that $AC = 13.0$ cm, correct to 3 significant figures.

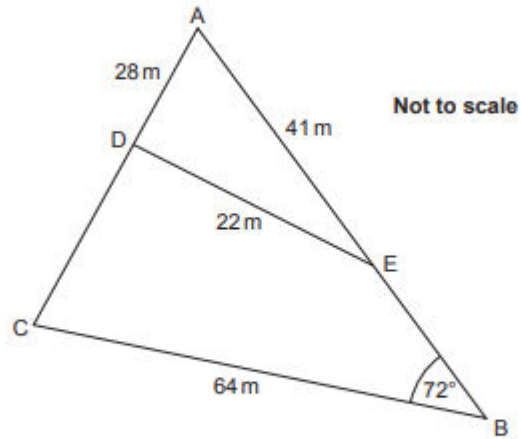
[4]

(b) Calculate BC.

(b) cm [3]

39.

- 14 The diagram shows triangle ABC with D on AC and E on AB.
DE is a straight line.



AD = 28 m, AE = 41 m, DE = 22 m and BC = 64 m.

Calculate the length CD.

..... m [6]

40.

8 The shorter side of a parallelogram has length 6.5 cm



Not drawn accurately

The length of the shorter side is $\frac{1}{9}$ of the perimeter.

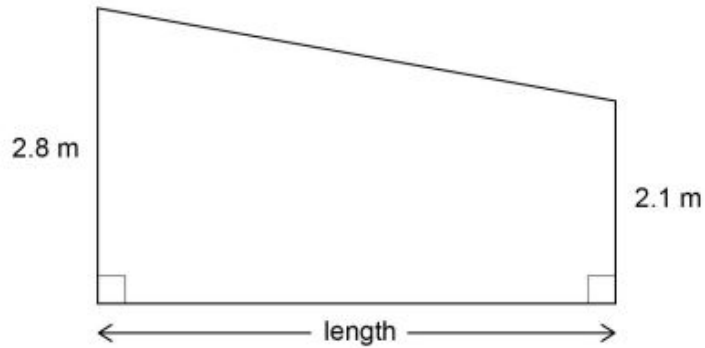
Work out the length of the longer side.

[3 marks]

Answer _____ cm

41.

13 The diagram shows a wall.



Not drawn accurately

The area of the wall is 39.2 m^2

Work out the length of the wall.

[3 marks]

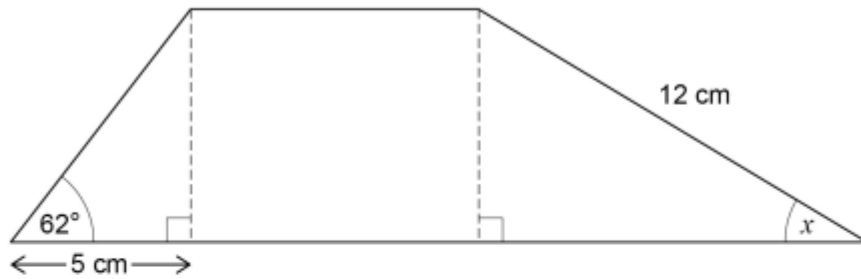
Answer _____ m

AQA GCSE – Thursday 4 June 2020 – Paper 2 (Calculator) Higher Tier

42.

18 This shape is made from two right-angled triangles and a rectangle.

Not drawn accurately

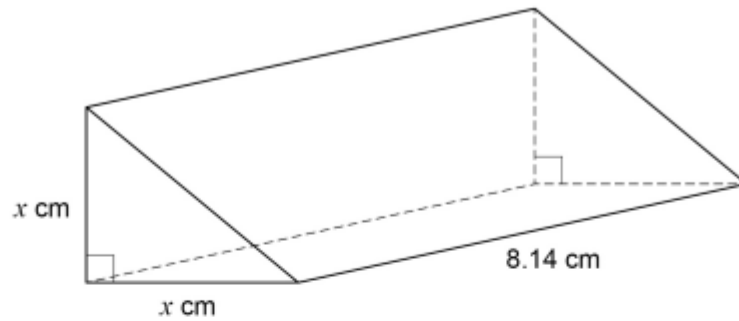


Work out the size of angle x .

[4 marks]

43.

13 The triangular cross section of a prism is an isosceles right-angled triangle.



The volume of the prism is 102 cm^3

Use approximations to estimate the value of x .

You **must** show your working.

[3 marks]

AQA GSCE – Thursday 6 November 2017 – Paper 2 (Calculator) Higher Tier

45.

- 19** The length of a rectangle is five times the width.
The area of the rectangle is 1620 cm^2

Not drawn
accurately



Work out the width of the rectangle.

[3 marks]

Answer _____ cm

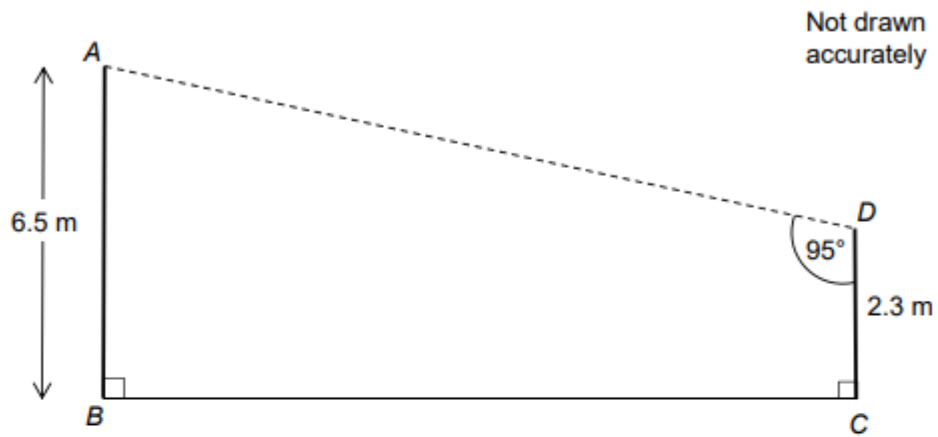
AQA GSCE – Sample Paper 3 (Calculator) Higher Tier

46.

15

The diagram shows a design for a zipwire.

The zipwire will run between the top of two vertical posts, AB and CD .



Work out the distance AD .

[4 marks]

Answer _____ m