

May 07 44

9.

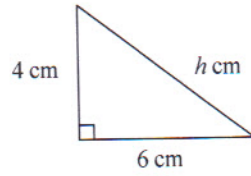


Diagram NOT accurately drawn

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

$h = \dots\dots\dots$

Q9

(Total 3 marks)

6.

May 08 34

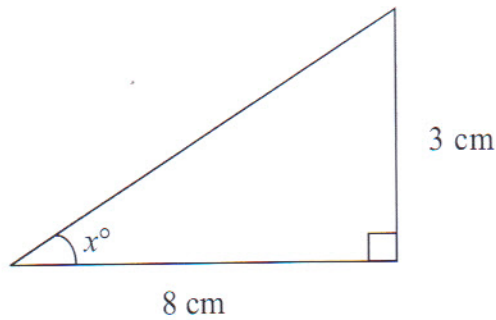


Diagram NOT accurately drawn

Work out the value of x .
Give your value correct to 1 decimal place.

$x = \dots\dots\dots$

Q6

(Total 3 marks)

May 08 4H

Leave blank

10. The diagram shows a circle with centre O and radius 5 cm.

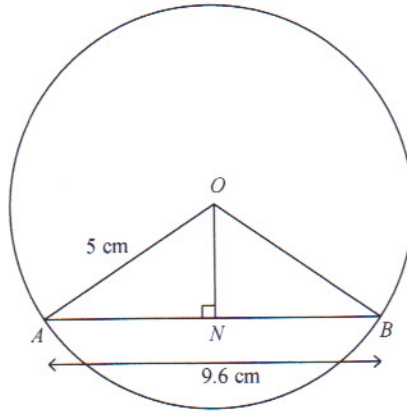


Diagram NOT accurately drawn

ANB is a chord of the circle.
 $AB = 9.6$ cm.
 Angle $ONA = 90^\circ$.

(a) Write down the length of AN .

..... cm
(1)

(b) Calculate the length of ON .

..... cm
(3)

Q10

(Total 4 marks)

12.

Nov 07 4H

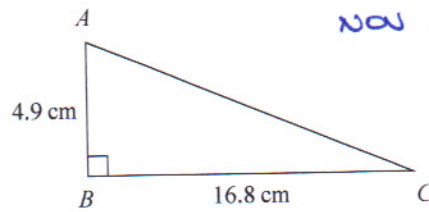


Diagram NOT accurately drawn

ABC is a triangle.
 Angle $ABC = 90^\circ$.
 $AB = 4.9$ cm.
 $BC = 16.8$ cm.

Calculate the length of AC .

..... cm
(Total 3 marks)

Q12

May 07 4H

7. (a)

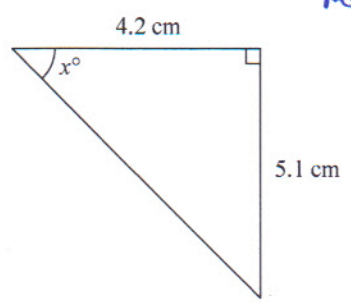


Diagram NOT accurately drawn

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

$x = \dots\dots\dots$
(3)

(b)

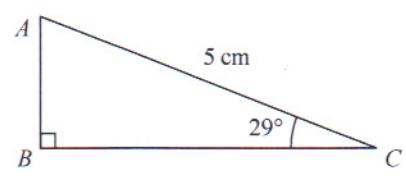


Diagram NOT accurately drawn

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

$\dots\dots\dots$ cm
(3)

(Total 6 marks)

Q7

May 09 41

8. (a)

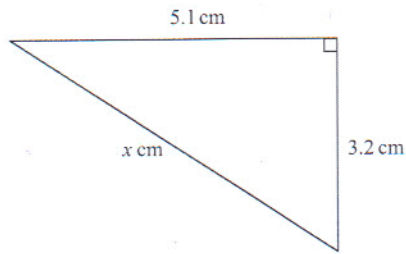


Diagram NOT accurately drawn

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

$x = \dots\dots\dots$
(3)

(b)

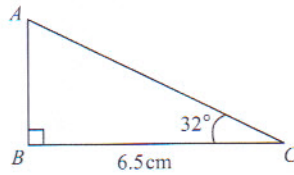


Diagram NOT accurately drawn

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

$\dots\dots\dots$ cm
(3)

Q8

(Total 6 marks)

9.

Nov 05 41

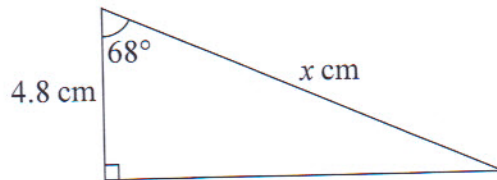


Diagram NOT accurately drawn

Calculate the value of x .

$x = \dots\dots\dots$

Q9

(Total 3 marks)

NOV 08 44

7.

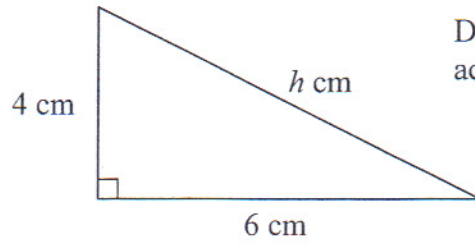


Diagram NOT accurately drawn

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

$h = \dots\dots\dots$

(Total 3 marks)

Q7

7. The diagram shows a triangle LMN .
 $MN = 15$ cm. $LN = 8$ cm.
Angle $LMN = 90^\circ$.

May 05 44

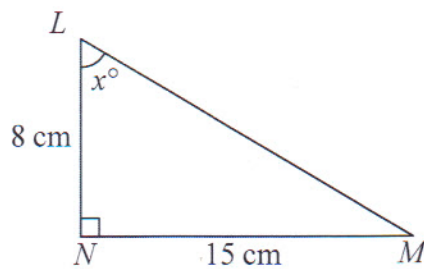


Diagram NOT accurately drawn

(a) Calculate the length of ML .

$\dots\dots\dots$ cm
(3)

(b) Write down the value of $\tan x^\circ$.

$\dots\dots\dots$
(1)

(Total 4 marks)

Q7

20. The diagram shows an equilateral triangle of side 2 m.

May 09 4H

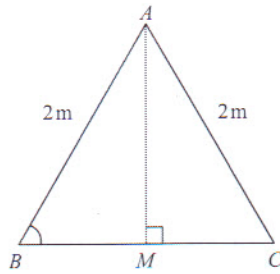


Diagram NOT accurately drawn

(a) (i) Use the diagram to show that $\cos 60^\circ = \frac{1}{2}$

(ii) Use the diagram to find the exact value of $\sin 60^\circ$
Give your answer as a surd.

$\sin 60^\circ = \dots\dots\dots$ (4)

(b) Use the exact values of $\cos 60^\circ$ and $\sin 60^\circ$ to show that $(\cos 60^\circ)^2 + (\sin 60^\circ)^2 = 1$

(2)

Q20

(Total 6 marks)

7.

May 09 3H

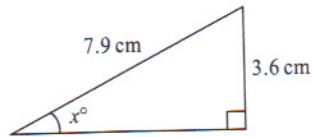


Diagram NOT accurately drawn

Work out the value of x .
Give your answer correct to 1 decimal place.

$x = \dots\dots\dots$

Q7

(Total 3 marks)

5. A straight road rises 60 m in a horizontal distance of 260 m.

Nov 04 3H

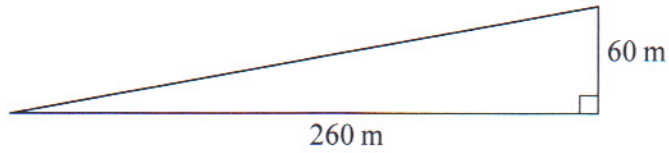


Diagram **NOT** accurately drawn

- (a) Work out the gradient of the road.
Give your answer as a fraction in its lowest terms.

.....
(2)

- (b) Calculate how far the road rises in a horizontal distance of 195 m.

..... m
(2)

(Total 4 marks)

Q5

Leave blank

9.

Nov 08 3H

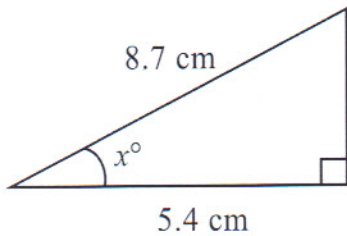


Diagram **NOT** accurately drawn

Work out the value of x .
Give your answer correct to 1 decimal place.

$x =$

(Total 3 marks)

Q9

18.

Nov 04 44

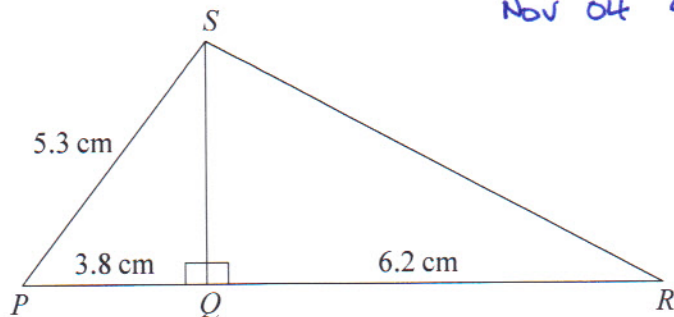


Diagram NOT accurately drawn

Angle $PQS = 90^\circ$.
 Angle $RQS = 90^\circ$.
 $PS = 5.3\text{ cm}$, $PQ = 3.8\text{ cm}$, $QR = 6.2\text{ cm}$.

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

..... cm
 (Total 5 marks)

Q18

NDV 06 4H

Leave blank

14.

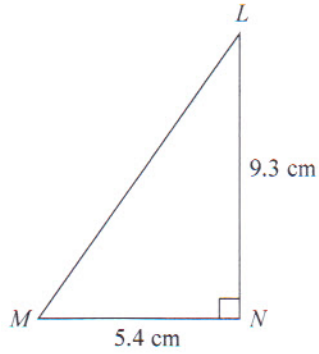


Diagram **NOT** accurately drawn

Triangle LMN is right-angled at N .
 $MN = 5.4$ cm and $LN = 9.3$ cm.

- (a) Work out the size of angle LMN .
Give your answer correct to 1 decimal place.

.....^o
.....
(3)

The length of MN is 5.4 cm, correct to 2 significant figures.

- (b) (i) Write down the upper bound of the length of MN .

..... cm

- (ii) Write down the lower bound of the length of MN .

..... cm
(2)



18.

NOV 09 44

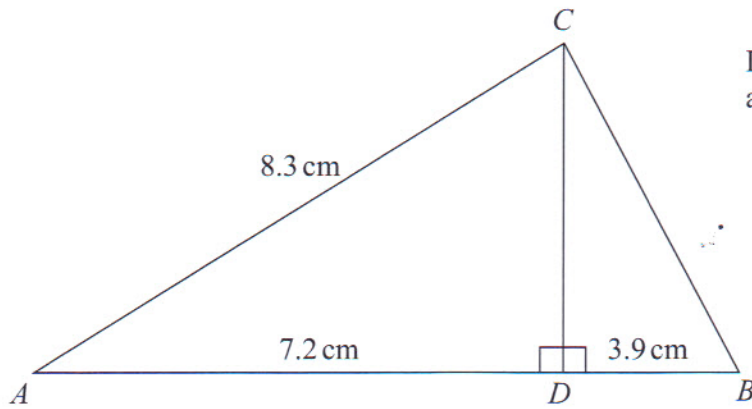


Diagram **NOT** accurately drawn

ABC is a triangle.
 D is a point on AB .
 CD is perpendicular to AB .
 $AD = 7.2\text{ cm}$, $DB = 3.9\text{ cm}$, $AC = 8.3\text{ cm}$.

Calculate the size of angle DBC .
 Give your answer correct to 1 decimal place.

..... °

(Total 5 marks)

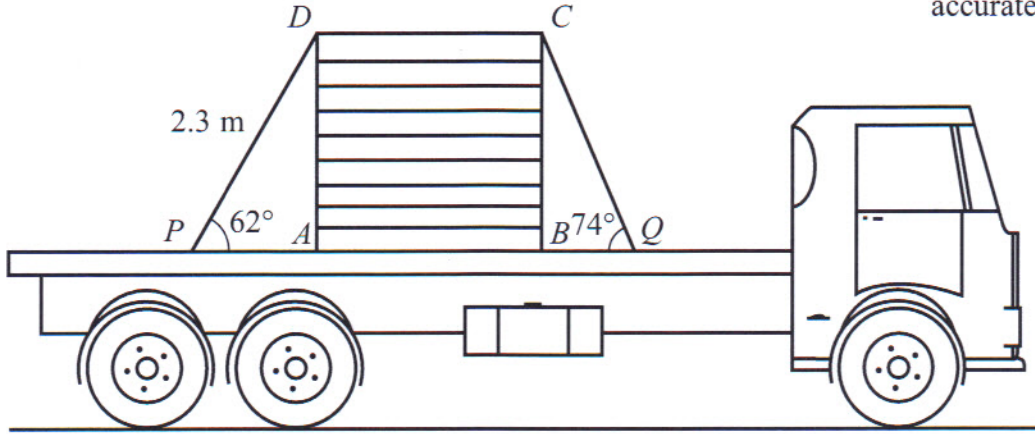
Q18



18.

May 06 34

Diagram NOT accurately drawn



The diagram shows a side view of a rectangular box $ABCD$ on a lorry. The box is held down on the horizontal flat surface of the lorry by a rope. The rope passes over the box and is tied at two points, P and Q , on the flat surface.

$DP = 2.3 \text{ m.}$

Angle $APD = 62^\circ.$

Angle $BQC = 74^\circ.$

Calculate the length of BQ .

Give your answer correct to 3 significant figures.

..... m

Q18

(Total 5 marks)



Nov 06 3H

9. ABC is a triangle.
 $AB = AC = 13$ cm.
 $BC = 10$ cm.
 M is the midpoint of BC .
Angle $AMC = 90^\circ$.

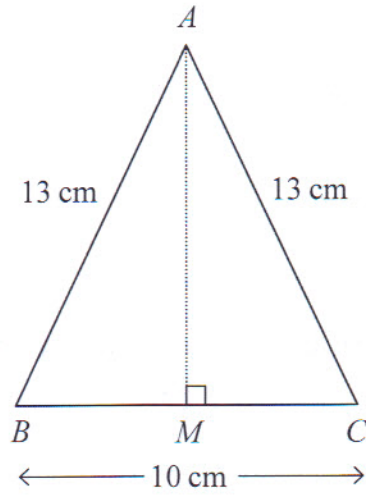


Diagram **NOT** accurately drawn

- (a) Work out the length of AM .

..... cm
(4)



Nov 06 3H
Q9 cont.

- (b) A solid has five faces.
Four of the faces are triangles identical to triangle ABC .
The base of the solid is a square of side 10 cm.

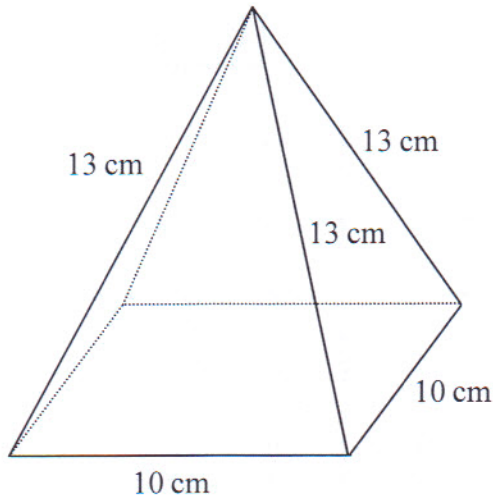


Diagram **NOT** accurately drawn

Calculate the total surface area of this solid.

..... cm^2
(4)

(Total 8 marks)

Q9

