Solutions by
Kenneth Stafford
MATHS TUTOR
ken@kennethstafford.co.uk

GCSE (9-1) Grade 5

SOHCAHTOA

Unfinished. Please support to inspire me on.

Instructions

Use **black** ink or ball-point pen.
Fill in the boxes at the top of this page with your name.
Answer **all** questions.
Answer the questions in the spaces provided
– there may be more space than you need.
Show all your working out

Information

The marks for **each** question are shown in brackets.
use this as a guide as to how much time to spend on each question.
Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed

Advice

Read each question carefully before you start to answer it
Attempt every question
Check your answers if you have time at the end

1.

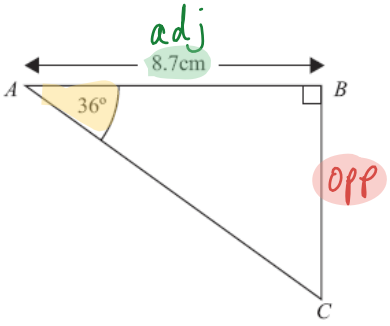
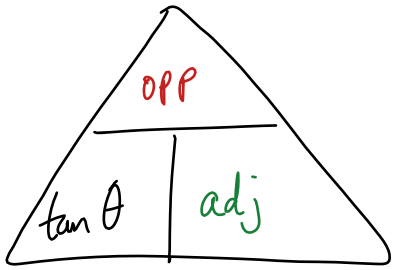


Diagram **NOT** accurately drawn



ABC is a right-angled triangle.

Angle $B = 90°$.
Angle $A = 36°$.
$AB = 8.7$ cm.

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

$\text{opp} = \tan\theta \times \text{adj}$

$BC = \tan(36) \times 8.7$

$BC = 6.32$

..... cm

(3 marks)

2.

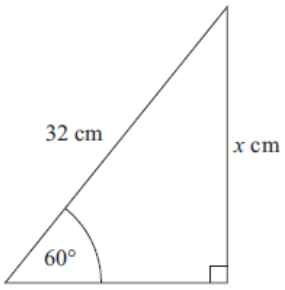


Diagram **NOT** accurately drawn

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

.....

(3 marks)

3.

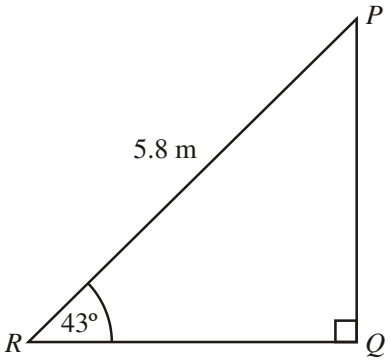


Diagram **NOT** accurately drawn

PQR is a triangle.
Angle $Q = 90°$.
Angle $R = 43°$.
$PR = 5.8$ m.

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

..... m

(3 marks)

4.

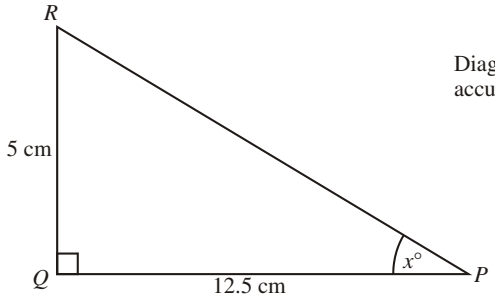


Diagram **NOT** accurately drawn

PQR is a triangle.
Angle $PQR = 90^0$.
$PQ = 12.5$ cm.
$QR = 5$ cm.

Calculate the value of *x*.
Give your answer correct to 1 decimal place.

.....

(3 marks)

www.naikermaths.com

5.

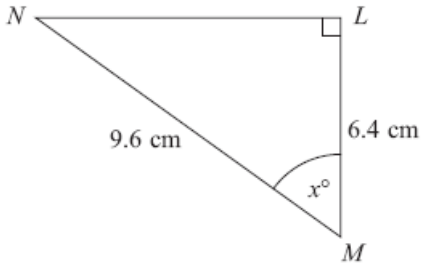


Diagram **NOT** accurately drawn

LMN is a right-angled triangle.
MN = 9.6 cm.
LM = 6.4 cm.

Calculate the size of the angle marked *x*°.
Give your answer correct to 1 decimal place.

.....°

(3 marks)

6.

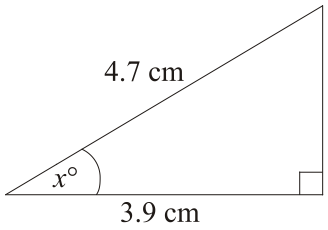


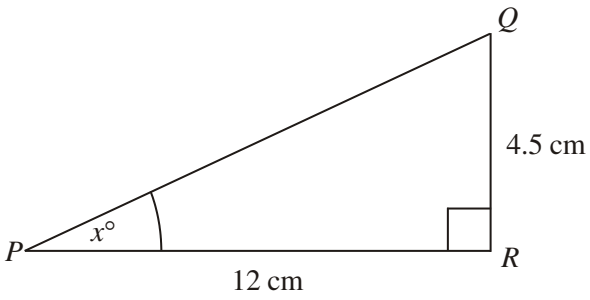
Diagram **NOT** accurately drawn

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

x = ...

(3 marks)

7. Diagram **NOT** accurately drawn



PQR is a right-angled triangle.
PR = 12 cm.
QR = 4.5 cm.
Angle *PRQ* = 90°.

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

x = ...

(3 marks)

---

8. Calculate the size of angle *a* in this right-angled triangle.
Give your answer correct to 3 significant figures.

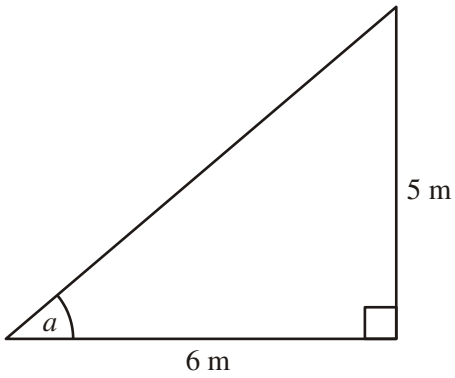


Diagram **NOT** accurately drawn

.....

(3 marks)

9. *PQR* is a right-angled triangle.

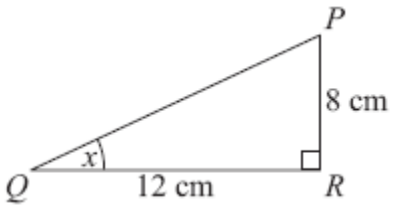


Diagram **NOT** accurately drawn

PR = 8 cm.
QR = 12 cm.

(a) Find the size of the angle marked *x*.
Give your answer correct to 1 decimal place.

..... °
(3)

XYZ is a different right-angled triangle.

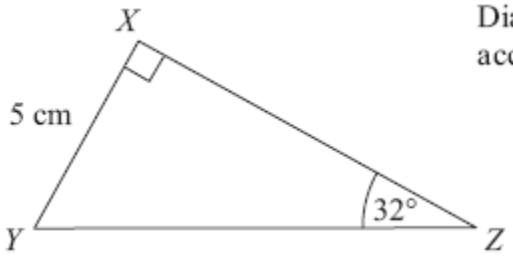


Diagram **NOT** accurately drawn

XY = 5 cm.
Angle *Z* = 32°.

(b) Calculate the length *YZ*.
Give your answer correct to 3 significant figures.

..... cm
(3)

(6 marks)

www.naikermaths.com

10. The diagram shows a quadrilateral *ABCD*.

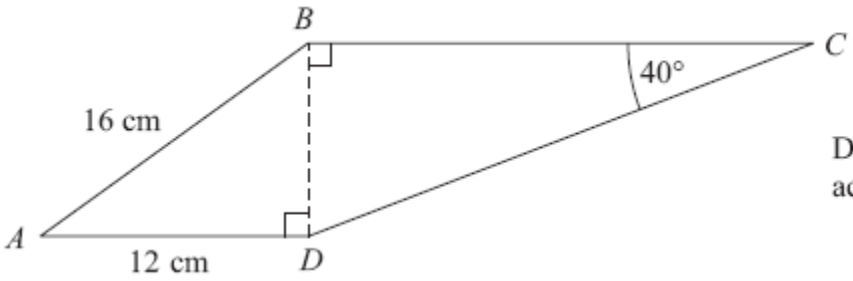


Diagram **NOT** accurately drawn

AB = 16 cm.
AD = 12 cm.
Angle *BCD* = 40°.
Angle *ADB* = angle *CBD* = 90°.

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

..... cm

(5 marks)

11.

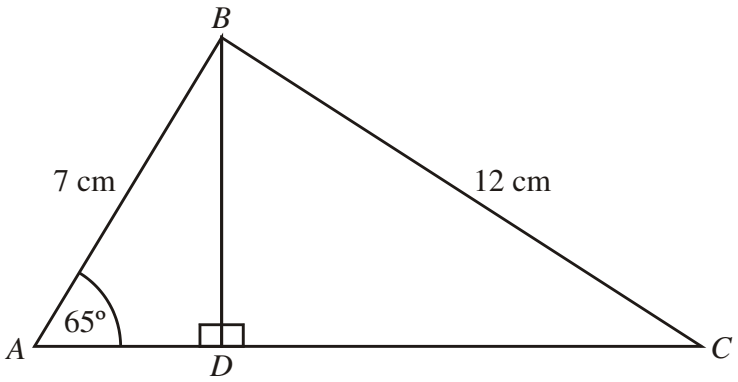


Diagram **NOT** accurately drawn

ABC is a triangle.
ADC is a straight line with *BD* perpendicular to *AC*.
AB = 7 cm.
BC = 12 cm.
Angle *BAD* = 65°.

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

..... cm

(6 marks)

www.naikermaths.com

12.

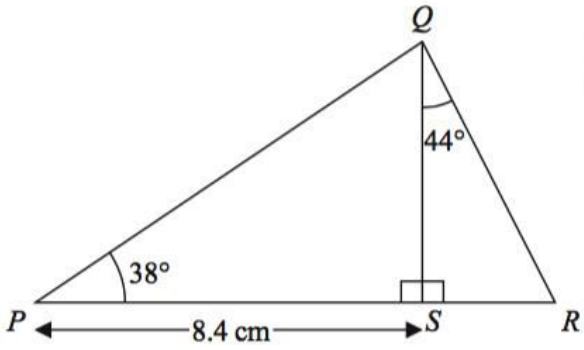


Diagram **NOT** accurately drawn

PSR is a straight line.

Angle $PSQ = 90°$
$PS = 8.4\,\text{cm}$
Angle $QPS = 38°$
Angle $SQR = 44°$

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

13.

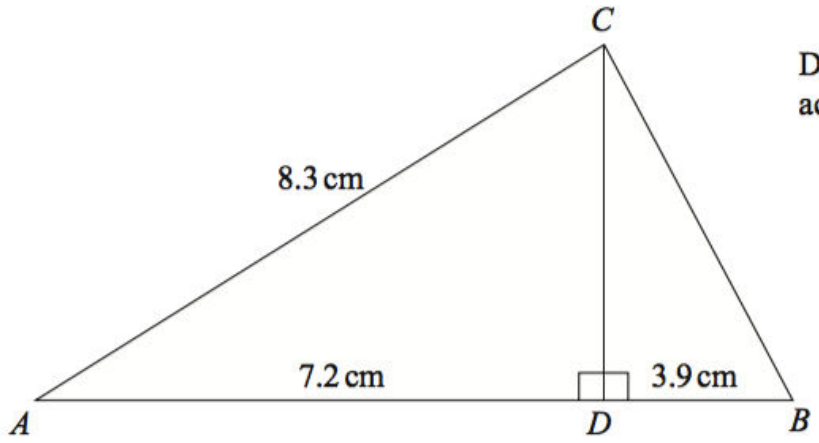


Diagram **NOT** accurately drawn

ABC is a triangle.
D is a point on *AB*.
CD is perpendicular to *AB*.
AD = 7.2 cm, *DB* = 3.9 cm, *AC* = 8.3 cm.

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