G135 Trigonometry

Q1.

Work out the value of *x*.

....
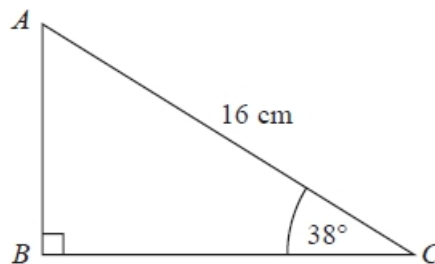
(Total for question = 2 marks)

Q2.

ABC is a right-angled triangle.

Calculate the length of *AB*.
Give your answer correct to 2 decimal places.

.... cm

(Total for question = 2 marks)

Q3.

PQR is a right-angled triangle.
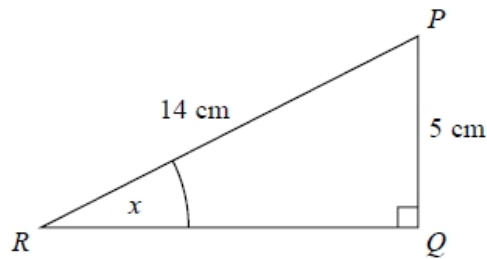
Work out the size of the angle marked *x*.
Give your answer correct to 1 decimal place.

....°

(Total for question = 2 marks)

Q4.

ABC is a right-angled triangle.
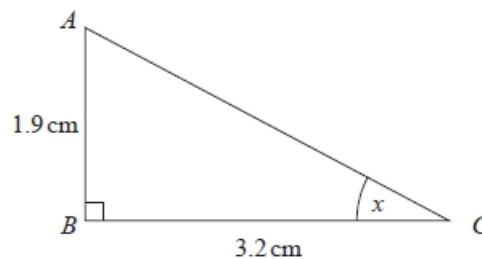
Work out the size of the angle marked *x*.
Give your answer correct to 1 decimal place.

....°

(Total for question = 2 marks)

Q5.

ABCD is a trapezium.

$-10\,\text{cm}-$

B C

$7.5\,\text{cm}$ $6\,\text{cm}$

A D

$-24\,\text{cm}-$
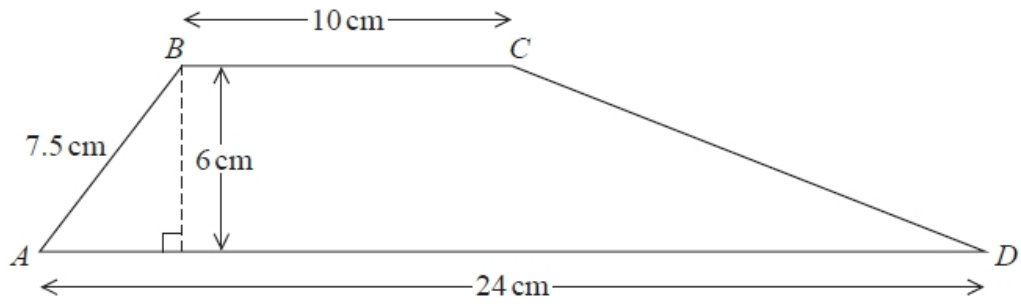
Work out the size of angle *CDA*.
Give your answer correct to 1 decimal place.

.... °

(Total for question = 5 marks)

Q6.

ABC is a right-angled triangle.
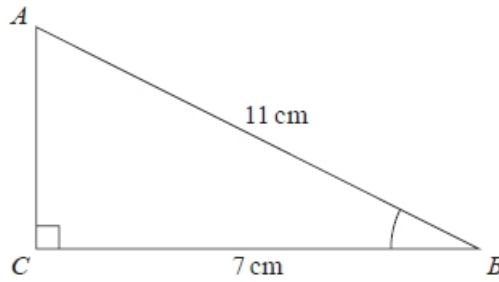
(a) Work out the size of angle *ABC*.

Give your answer correct to 1 decimal place.

.... °

(2)

The length of the side *AB* is reduced by 1 cm.

The length of the side *BC* is still 7 cm.
Angle *ACB* is still 90°

(b) Will the value of cos ABC increase or decrease?

You must give a reason for your answer.

....

....
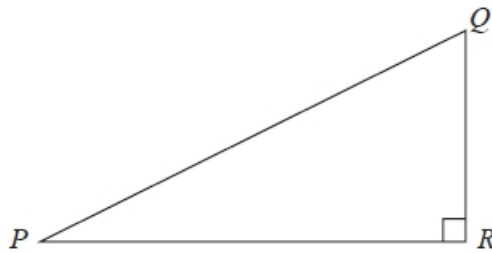
(1)

(Total for question = 3 marks)

Q7.

Here is triangle *PQR*.
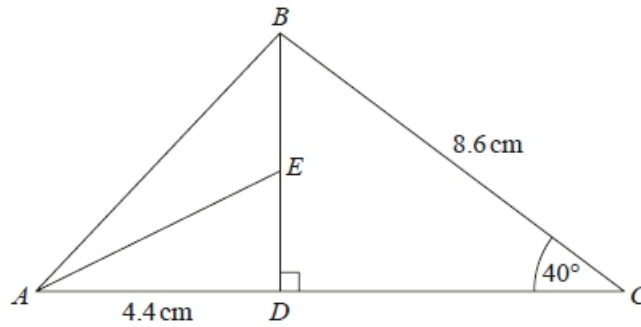

The length of *QR* is 60% of the length of *PR*.

Find the value of sin *QPR*.
Give your answer correct to 3 significant figures.

....

(Total for question = 3 marks)

Q8.

The diagram shows triangle *ABC*.

ADC and *DEB* are straight lines.

AD = 4.4 cm
BC = 8.6 cm
E is the midpoint of *DB*.

Angle *CDB* = 90°
Angle *DCB* = 40°

Work out the size of angle *EAD*.
Give your answer correct to 1 decimal place.
You must show all your working.

.... °

(Total for question = 4 marks)

Q9.
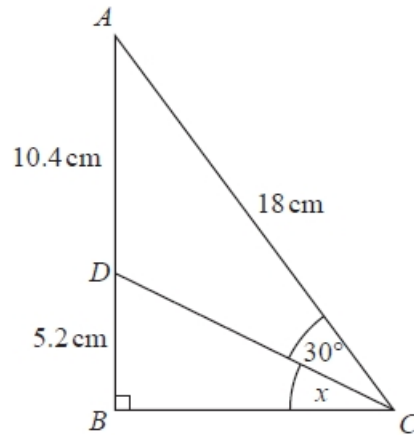
Diagram **NOT** accurately drawn

ABC is a right-angled triangle.
D is a point on *AB*.

Angle *ACD* = 30°
AD = 10.4 cm
DB = 5.2 cm
AC = 18 cm

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

.... °
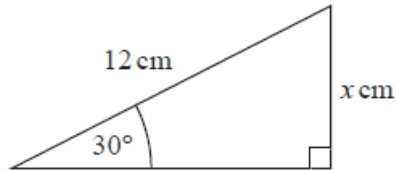
(Total for question = 4 marks)

Q10.

(a) Write down the exact value of cos30°

....

(1)

(b)

Given that sin30° = 0.5,
work out the value of *x*.

....

(2)

(Total for question is 3 marks)

Q11.

Find the exact value of tan 30° × sin 60°
Give your answer in its simplest form.

....

(Total for question = 2 marks)