

Name

Class



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Trigonometry

(9 – 1) Topic booklet

Foundation

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
 - *there may be more space than you need.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out**.
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

Information

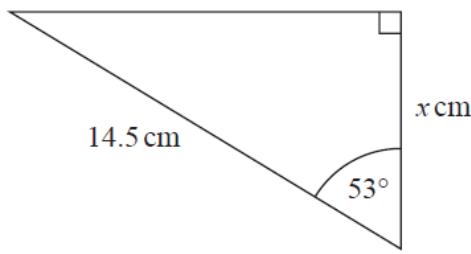
- The marks for **each** question are shown in brackets
 - *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

**Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.**

22



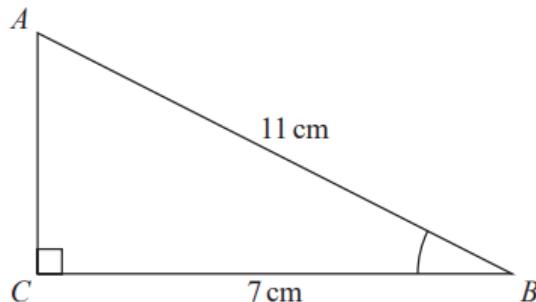
Work out the value of x .
Give your answer correct to 3 significant figures.

$x = \dots$

November 2022 – 2F

(Total for Question 22 is 2 marks)

23 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.

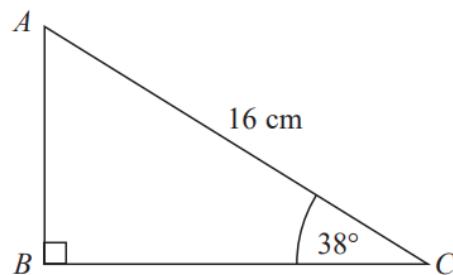
Angle ACB is still 90°

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

You must give a reason for your answer.

.....
(1)

24 ABC is a right-angled triangle.



Calculate the length of AB .

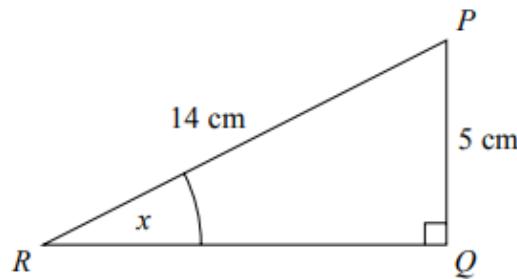
Give your answer correct to 2 decimal places.

..... cm

June 2019 – Paper 2F

(Total for Question 24 is 2 marks)

24 PQR is a right-angled triangle.

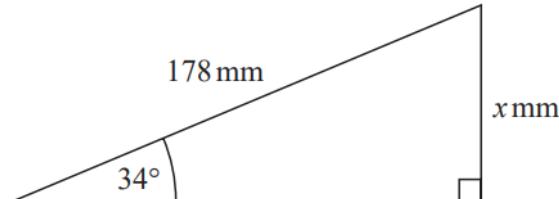


Work out the size of the angle marked x .
Give your answer correct to 1 decimal place.

Sample 1 – Paper 2F

(Total for Question 24 is 2 marks)

25

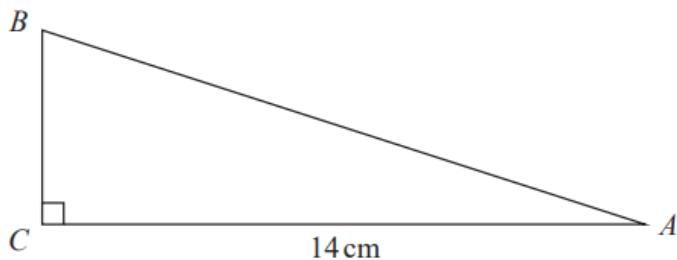


Work out the value of x .
Give your answer correct to 1 decimal place.

May 2020 – Paper 2F

(Total for Question 25 is 2 marks)

25 ABC is a right-angled triangle.



$$AC = 14\text{ cm.}$$

$$\text{Angle } C = 90^\circ$$

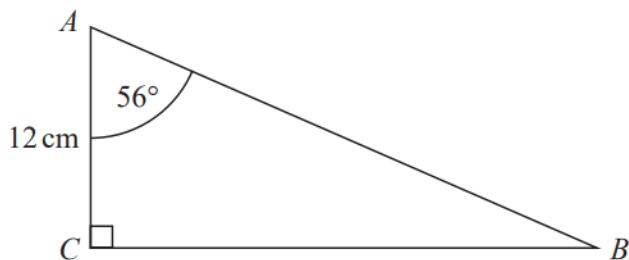
$$\text{size of angle } B : \text{size of angle } A = 3 : 2$$

Work out the length of AB .

Give your answer correct to 3 significant figures.

..... cm

26 ABC is a right-angled triangle.

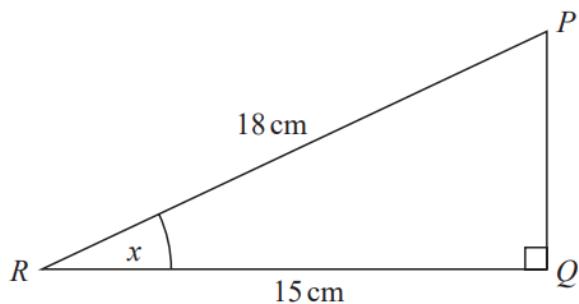


(a) Work out the length of BC .

Give your answer correct to 1 decimal place.

..... cm
(2)

PQR is a right-angled triangle.



(b) Work out the size of the angle marked x .

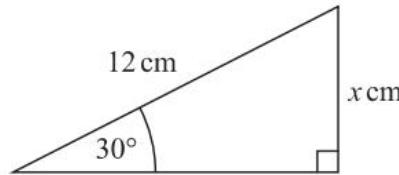
Give your answer correct to 1 decimal place.

.....
(2)

26 (a) Write down the exact value of $\cos 30^\circ$

(1)

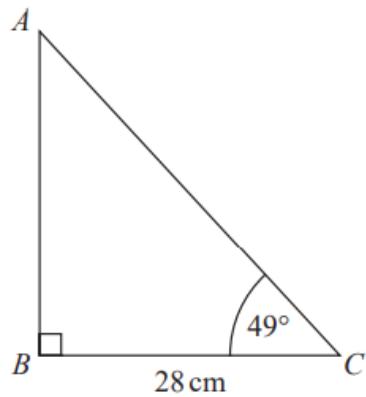
(b)



Given that $\sin 30^\circ = 0.5$,
work out the value of x .

(2)

29 ABC is a right-angled triangle.



Calculate the length of AB .

Give your answer correct to 3 significant figures.

..... cm

November 2023 – Paper 2F

(Total for Question 29 is 2 marks)

30 Write down the exact value of $\cos 60^\circ$

.....

June 2023 – Paper 1F

(Total for Question 30 is 1 mark)