



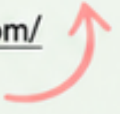
JP Maths

Revision



Attempt the paper
before watching the
solutions!

[https://www.youtube.com/
@JPMathsRevision](https://www.youtube.com/@JPMathsRevision)



HIGHER TIER

The Sine and Cosine Rule



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.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.



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.

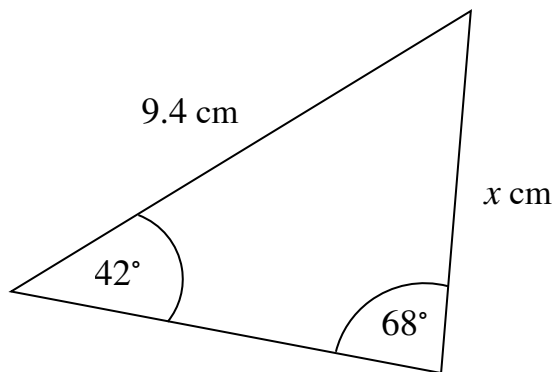


You've got this!

Section 1: The Sine Rule

1. In the below triangle, work out the value of x .

Give your answer to 1 decimal place.

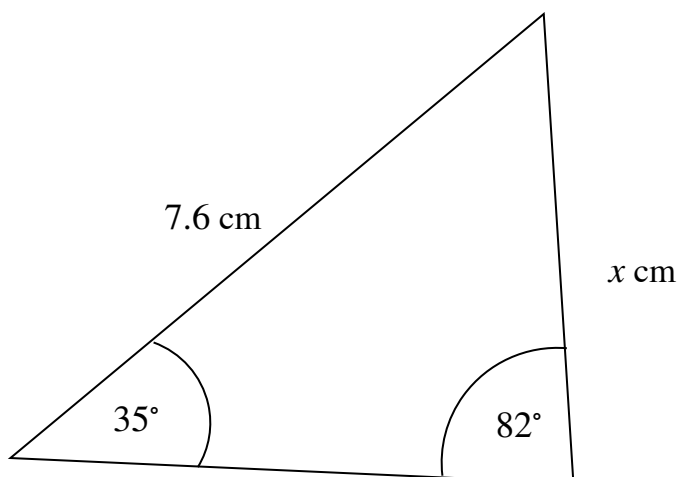


.....
cm

(Total for Question 1 is 3 marks)

2. In the below triangle, work out the value of x .

Give your answer to 1 decimal place.

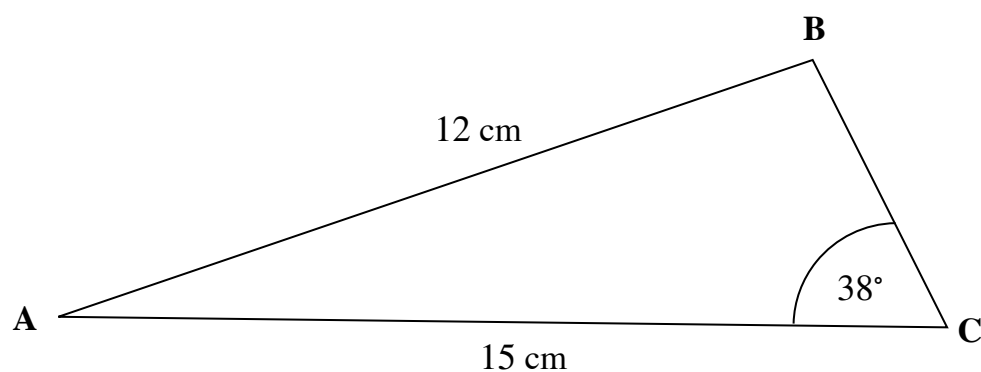


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cm

(Total for Question 2 is 3 marks)

3. In the below triangle, work out the size of angle ABC

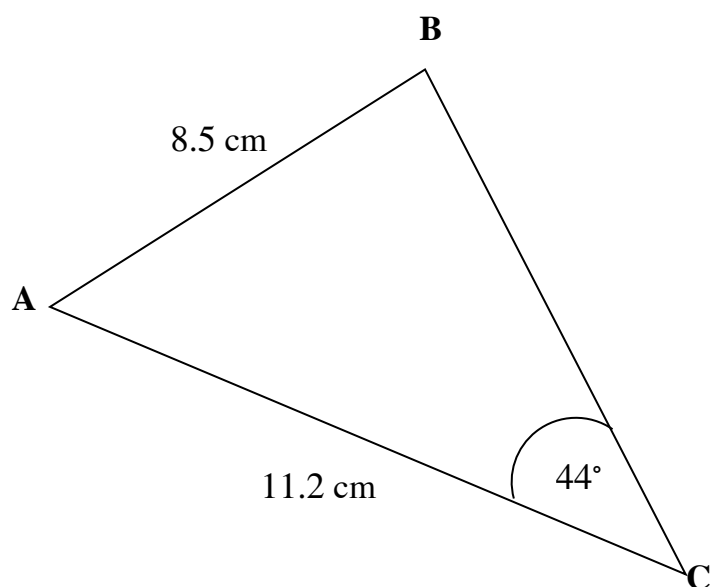
Give your answer to 1 decimal place.



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(Total for Question 3 is 3 marks)

4. In the below triangle, work out the size of angle ABC

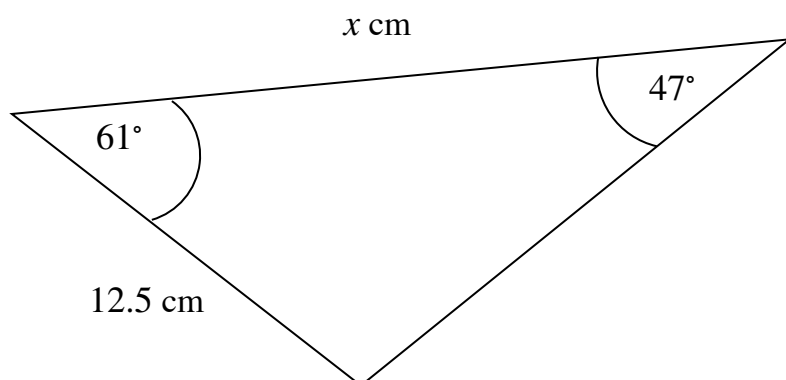
Give your answer to 1 decimal place.



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(Total for Question 4 is 3 marks)

5. In the below triangle, work out the value of x .

Give your answer to 1 decimal place.



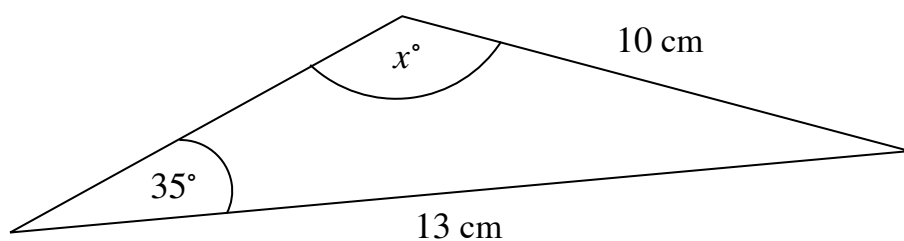
cm

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(Total for Question 5 is 4 marks)

6. In the below triangle, angle x° is obtuse.

work out the size of the angle marked x° .

Give your answer to 1 decimal place.



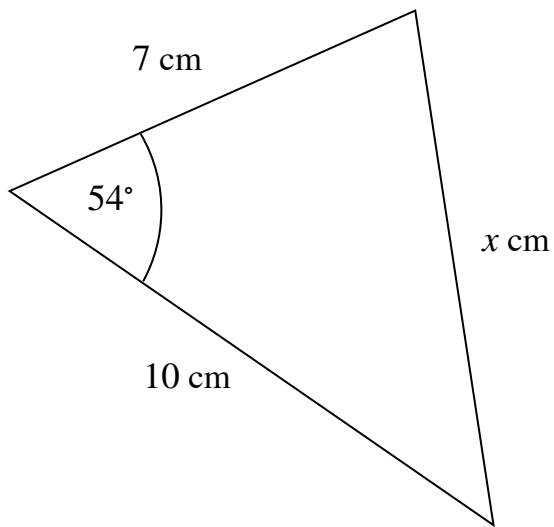
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(Total for Question 6 is 4 marks)

Section 2: The Cosine Rule

7. In the below triangle, work out the value of x .

Give your answer to 1 decimal place.

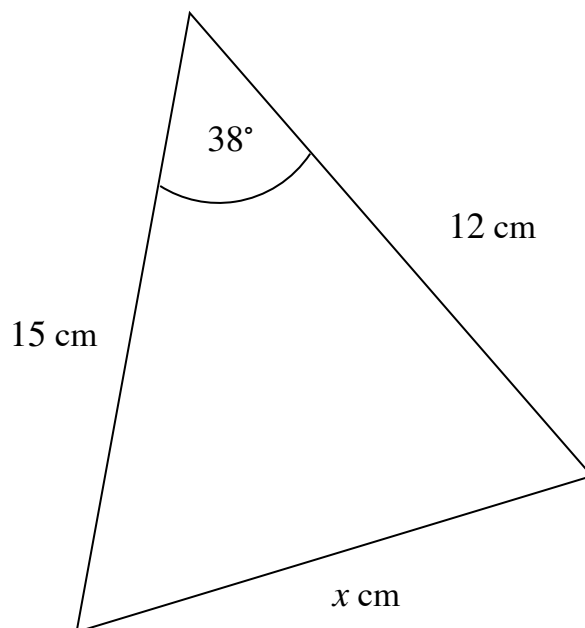


cm

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(Total for Question 7 is 3 marks)

8. In the below triangle, work out the value of x .

Give your answer to 1 decimal place.

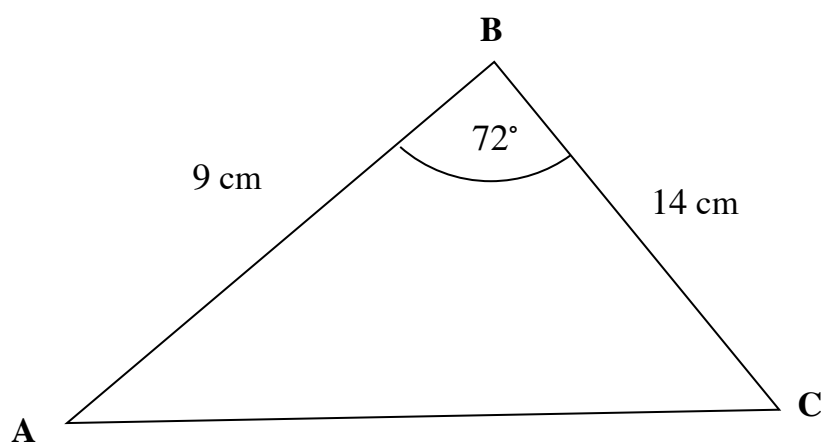


cm

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(Total for Question 8 is 3 marks)

9. In the below triangle, work out the length of AC.

Give your answer to 1 decimal place.

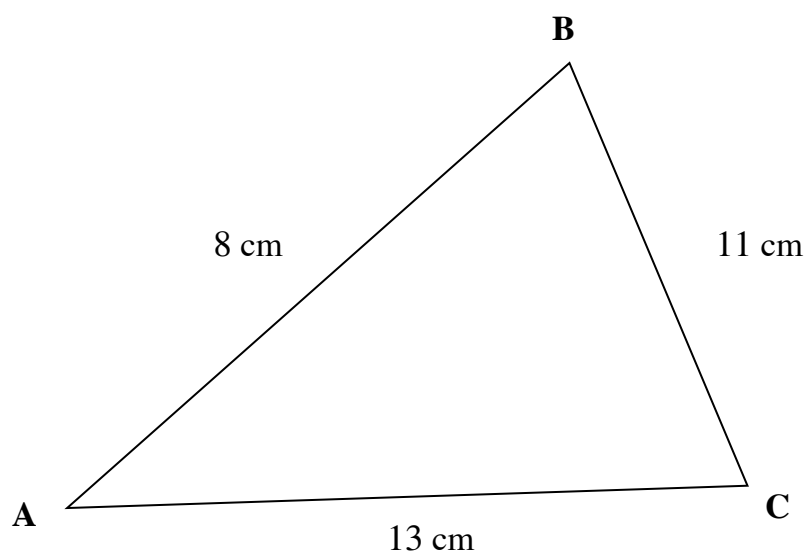


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cm

(Total for Question 9 is 3 marks)

10. In the below triangle, work out the size of angle ABC.

Give your answer to 1 decimal place.

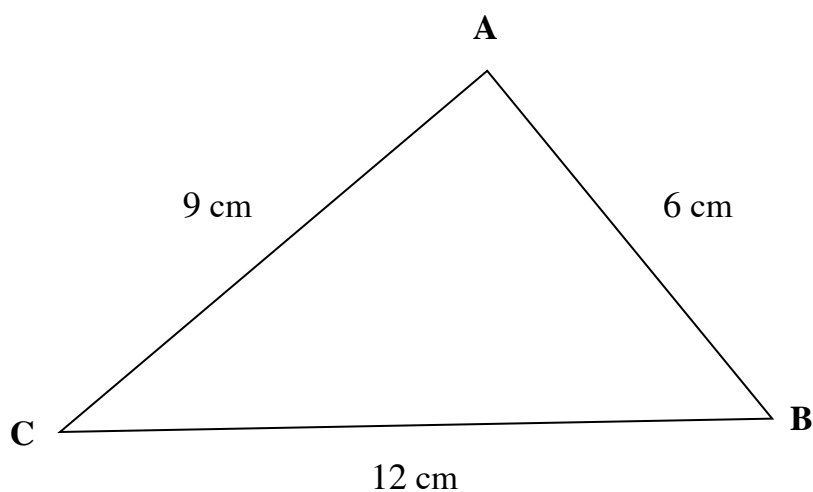


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°

(Total for Question 10 is 3 marks)

11. In the below triangle, work out the size of angle BAC.

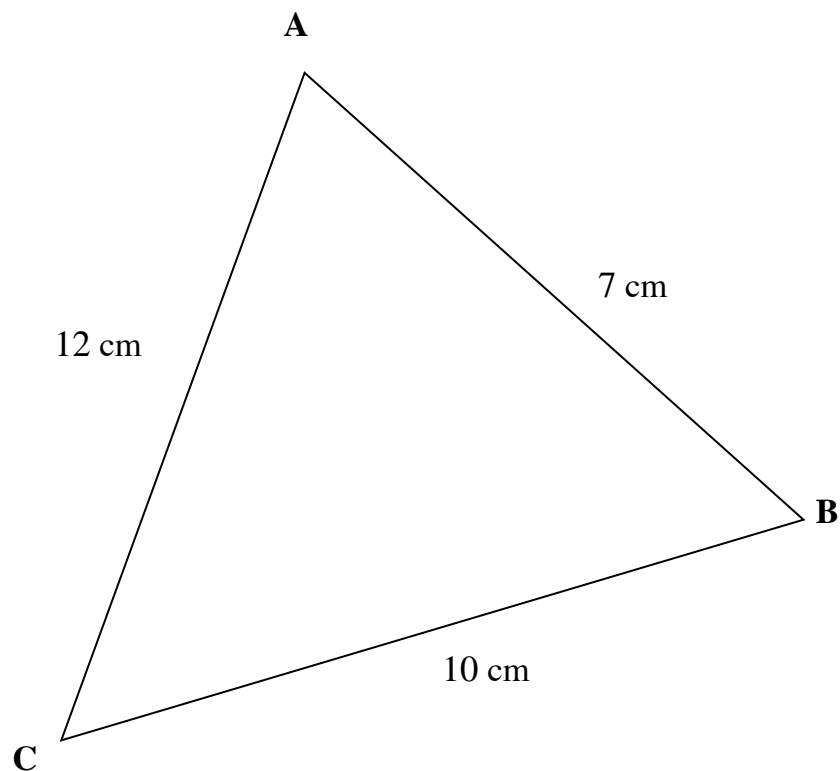
Give your answer to 1 decimal place.



.....
(Total for Question 11 is 3 marks)

12. In the below triangle, work out the size of angle ABC.

Give your answer to 1 decimal place.

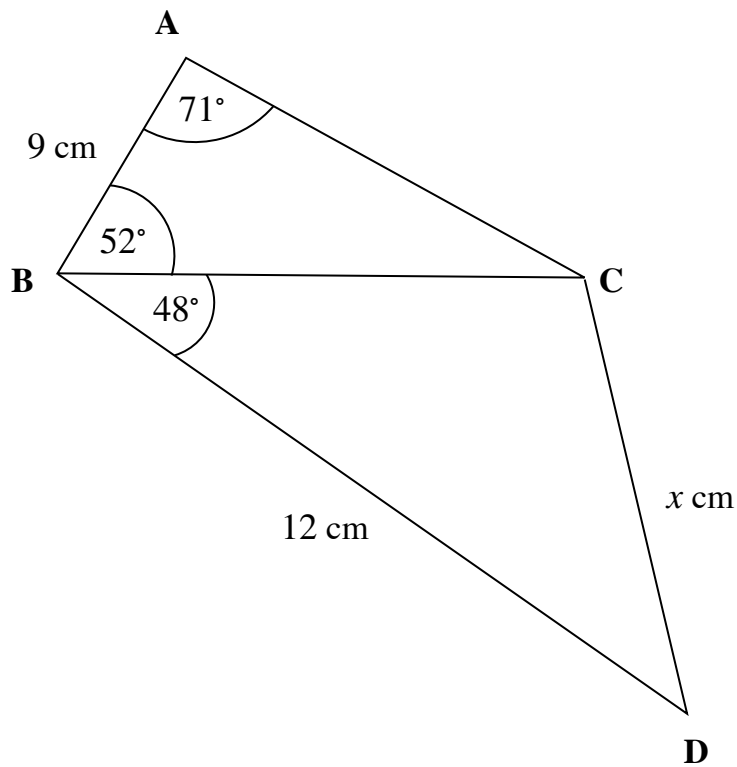


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(Total for Question 12 is 3 marks)

Section 3: Mixed Questions

- 13.** In the below triangle, work out the size of $\angle C$.

Give your answer to 3 significant figures.

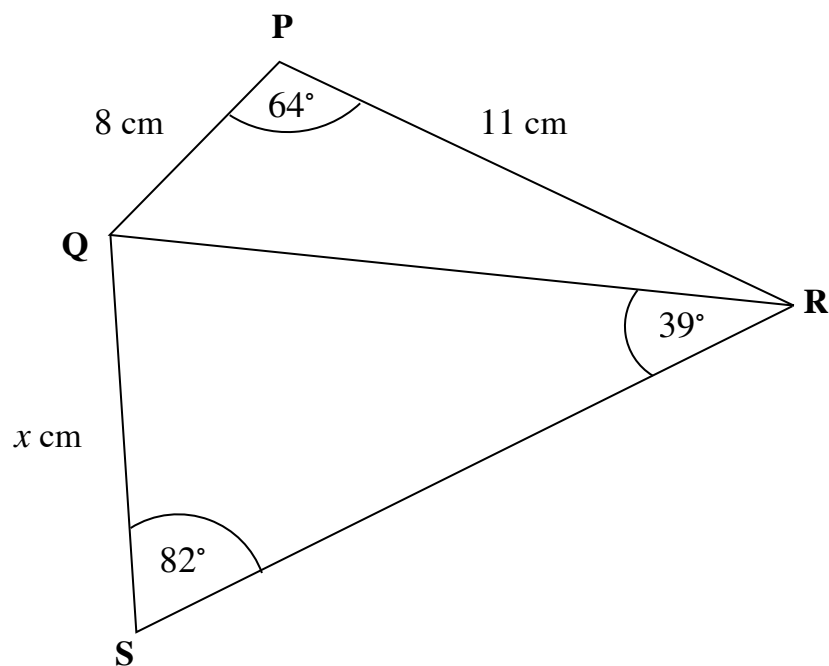


cm

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(Total for Question 13 is 4 marks)

14. In the below triangle, work out the size of QS.

Give your answer to 3 significant figures.

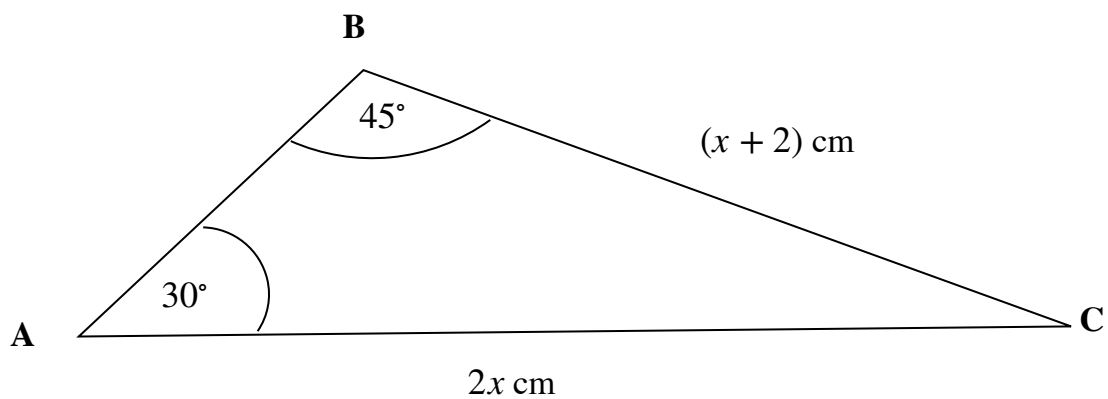


cm

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(Total for Question 14 is 4 marks)

15. In the below triangle, work out the size of AB.

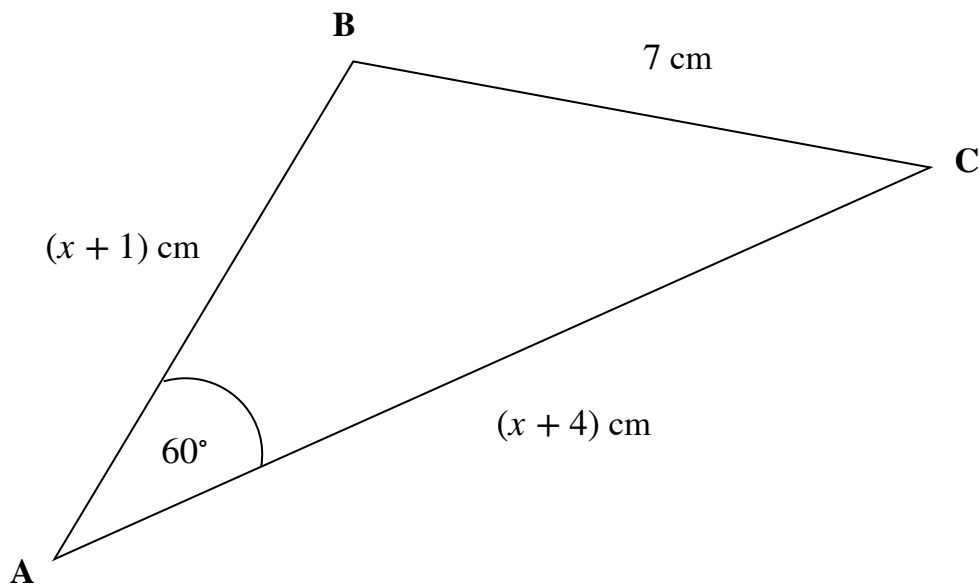
Give your answer to 3 significant figures.



cm

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(Total for Question 15 is 5 marks)

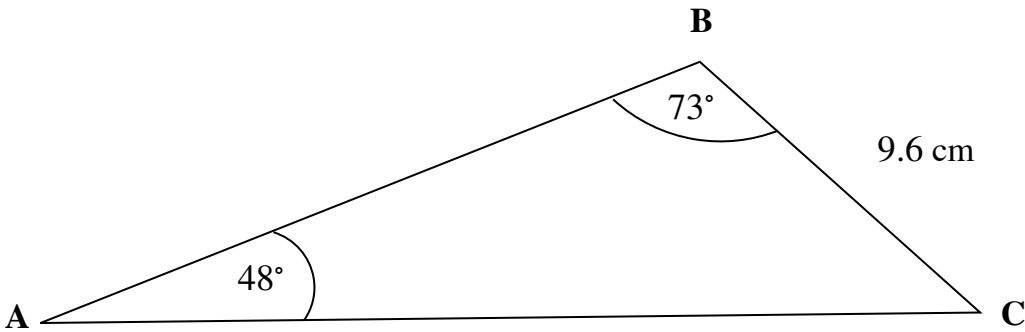
16. Work out the perimeter of the triangle ABC.



cm

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(Total for Question 16 is 5 marks)

17. Work out the perimeter of the triangle ABC.



cm

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(Total for Question 17 is 5 marks)