



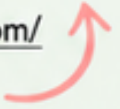
JP Maths

Revision



Attempt the paper
before watching the
solutions!

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



HIGHER TIER

Area of a Triangle using $A = \frac{1}{2}absin(C)$



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.*



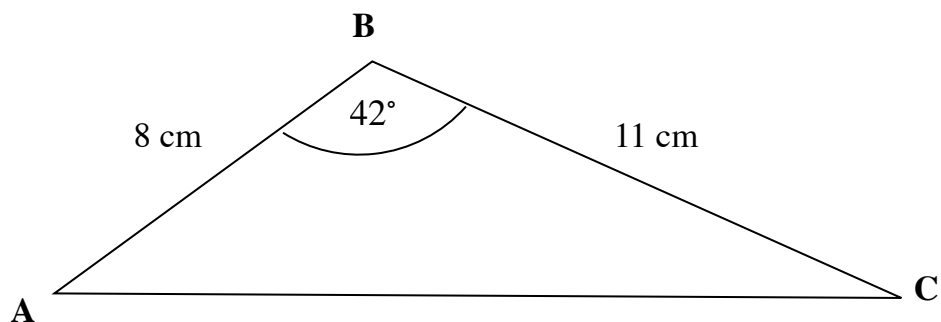
ADVICE

- 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! ❤️

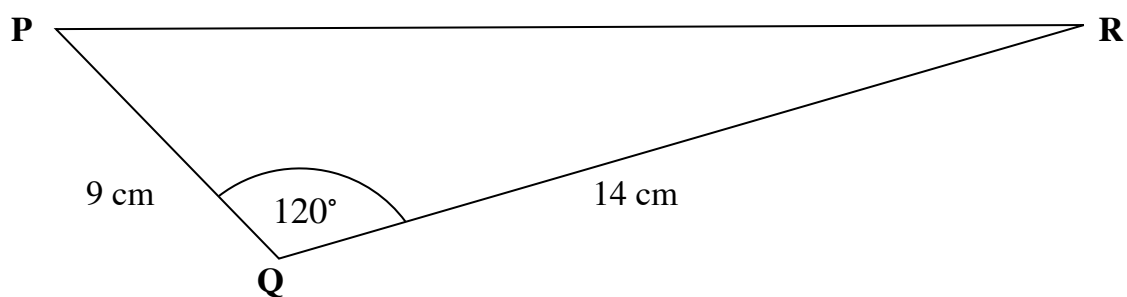
1. Calculate the area of triangle ABC.



.....
cm²

(Total for Question 1 is 2 marks)

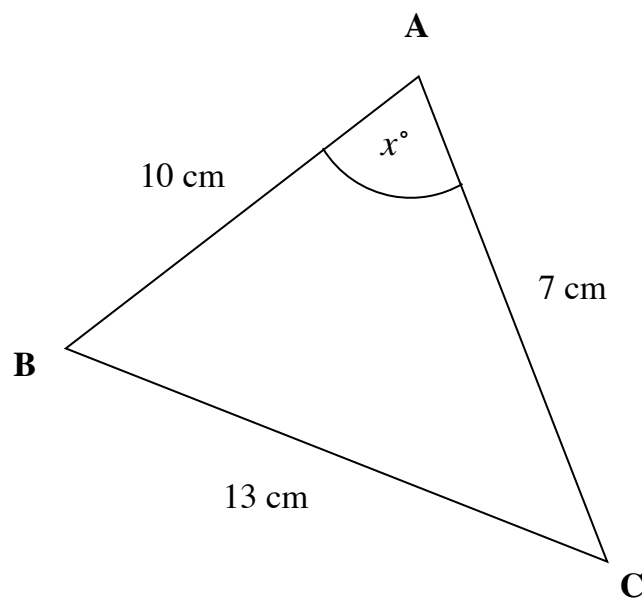
2. Calculate the area of triangle PQR.



.....
cm²

(Total for Question 2 is 2 marks)

3. (a) Work out the size of angle BAC.



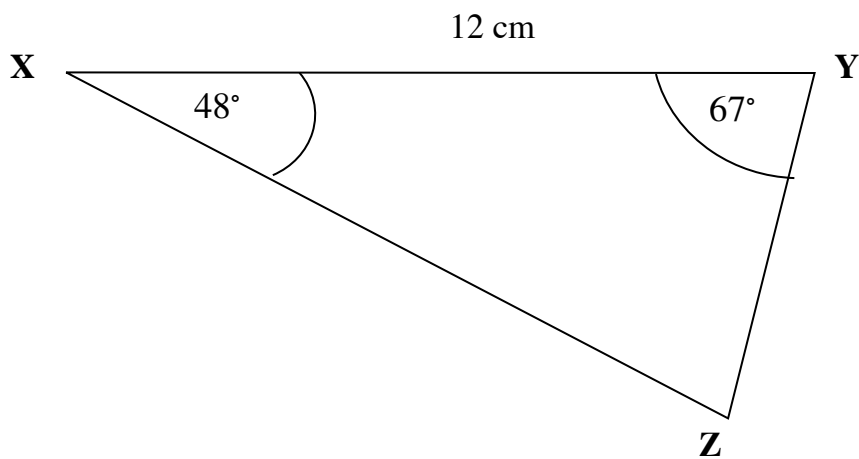
.....
(3)

- (b) Hence, work out the area of triangle ABC.

..... cm^2
(2)

(Total for Question 3 is 5 marks)

4. (a) Work out the size of the side YZ.



..... cm
(3)

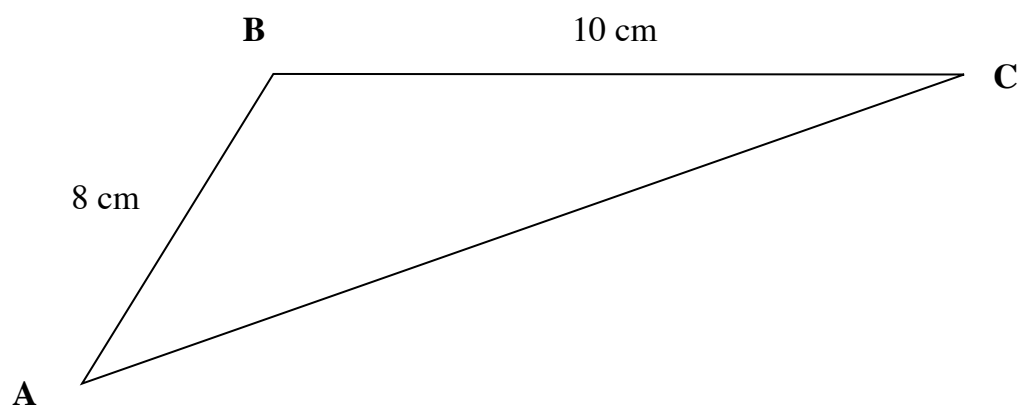
- (b) Hence, work out the area of triangle XYZ.

..... cm²
(2)

(Total for Question 4 is 5 marks)

5. The area of triangle ABC is 30 cm^2 .

(a) Given that angle ABC is obtuse, work out the size of angle ABC.



.....
(4)

(b) Hence, work out the length of the side AC.

..... cm
(3)

(Total for Question 5 is 7 marks)

6. The area of triangle ABC is 42 cm^2 .

One side is 7cm and another is 12 cm.

Is triangle ABC right-angled?

You must give reason for your answer.

(Total for Question 6 is 4 marks)

7. The area of a triangle is 24 cm^2 .

Two sides are $x \text{ cm}$ and 8 cm .

The angle between them is 30° .

Find the length of the third side.

.....
cm

(Total for Question 7 is 5 marks)
