JRA Tutors
Private tuition and small online Study Pods

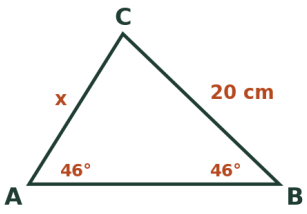
The Sine Rule

Grade 7 topic · Higher tier · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Questions 1–15 (65 marks) build up to the harder Grade 8–9 style questions at the end; aim to complete all 20. Show your working on the lines and write your final answer on the answer line, then mark yourself with the answers at the back. Diagrams are not drawn accurately. Total: 89 marks.

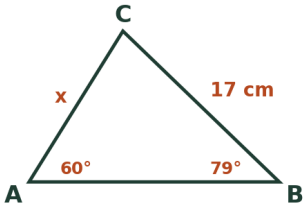
Warm-up

1 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



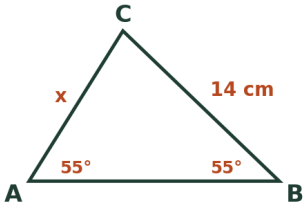
Answer _____

2 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



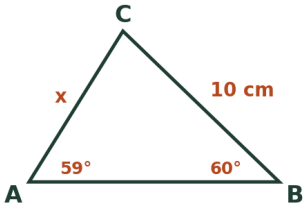
Answer _____

3 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



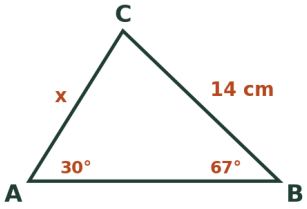
Answer _____

4 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



Answer _____

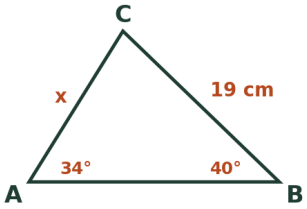
5 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



Answer _____

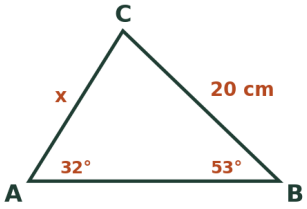
Core

6 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



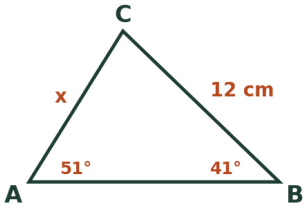
Answer _____

7 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



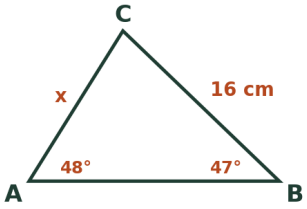
Answer _____

8 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



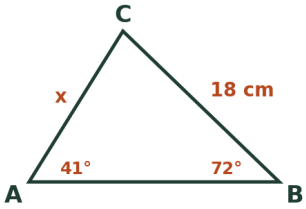
Answer _____

9 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



Answer _____

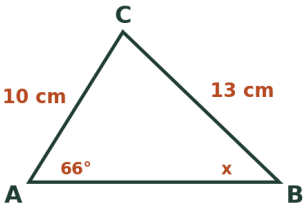
10 Work out the length of the side marked x. Give your answer to 3 significant figures. **[4 marks]**



Answer _____

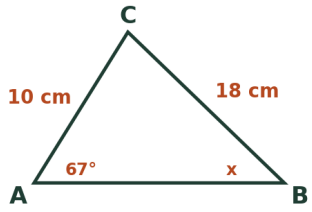
Stretch

11 Work out the size of angle x. Give your answer to 1 decimal place. **[5 marks]**



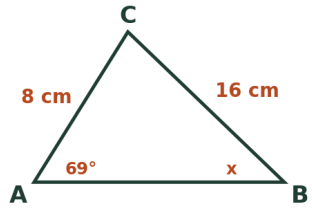
Answer _____

12 Work out the size of angle x. Give your answer to 1 decimal place. **[5 marks]**



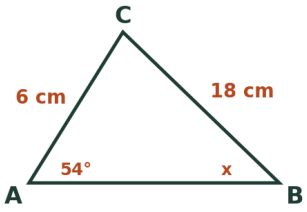
Answer _____

13 Work out the size of angle x. Give your answer to 1 decimal place. **[5 marks]**



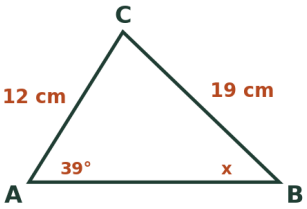
Answer _____

14 Work out the size of angle x. Give your answer to 1 decimal place. **[5 marks]**



Answer _____

15 Work out the size of angle x. Give your answer to 1 decimal place. **[5 marks]**



Answer _____

Challenge

16 In triangle ABC, AB = 13 cm, angle A = 42° and angle B = 63°. Work out AC to 3 s.f. **[5 marks]**

Answer _____

17 A ship leaves port A and sails to B on a bearing of 060°. A lighthouse L is on a bearing of 100° from A and 320° from B. AB = 10 km. Work out AL to 3 s.f. **[6 marks]**

Answer _____

18 Triangle ABC has AB = 12 cm, angle A = 40° and angle C = 65°. Work out BC to 3 s.f. **[5 marks]**

Answer _____

19 State the sine rule for triangle ABC. **[3 marks]**

Answer _____

20 Two angles of a triangle are 47° and 62°. The side opposite the 47° angle is 12 cm. Work out the longest side to 3 s.f. **[5 marks]**

Answer _____