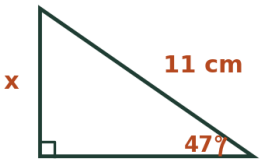
SOHCAHTOA (Trigonometry)

Grade 5 topic · Foundation and Higher · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Foundation students: aim for Questions 1–15 (55 marks) and have a go at the rest. Higher students: 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: 77 marks.

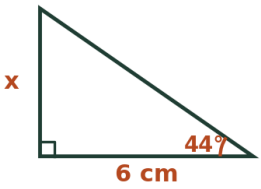
Warm-up

1 Work out the value of x. Give your answer to 3 significant figures. **[3 marks]**



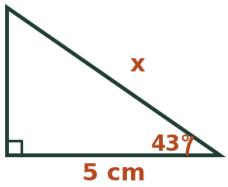
Answer _____

2 Work out the value of x. Give your answer to 3 significant figures. **[3 marks]**



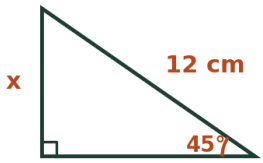
Answer _____

3 Work out the value of x. Give your answer to 3 significant figures. **[3 marks]**



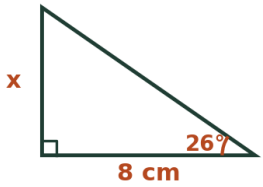
Answer _____

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



Answer _____

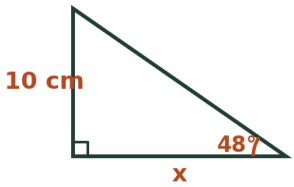
5 Work out the value of x. Give your answer to 3 significant figures. **[3 marks]**



Answer _____

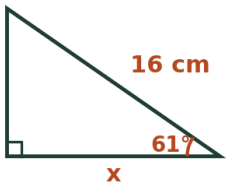
Core

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



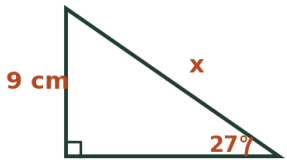
Answer _____

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



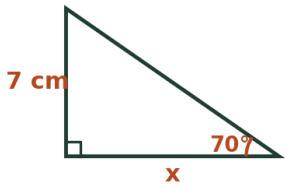
Answer _____

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



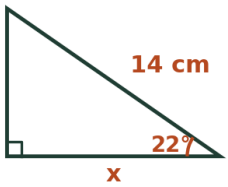
Answer _____

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



Answer _____

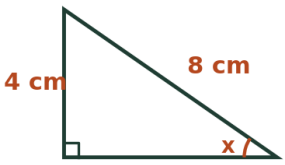
10 Work out the value of x. Give your answer to 3 significant figures. **[4 marks]**



Answer _____

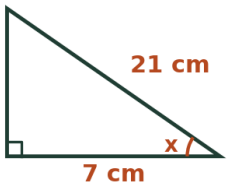
Stretch

11 Work out the size of angle x. Give your answer to 1 decimal place. **[4 marks]**



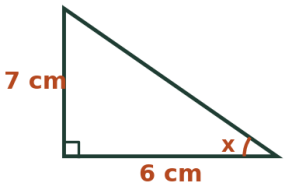
Answer _____

12 Work out the size of angle x. Give your answer to 1 decimal place. **[4 marks]**



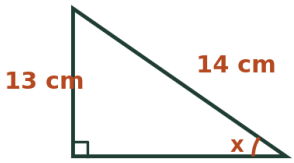
Answer _____

13 Work out the size of angle x. Give your answer to 1 decimal place. **[4 marks]**



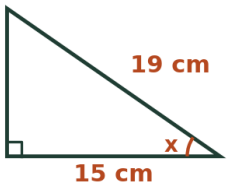
Answer _____

14 Work out the size of angle x. Give your answer to 1 decimal place. **[4 marks]**



Answer _____

15 Work out the size of angle x. Give your answer to 1 decimal place. **[4 marks]**



Answer _____

Challenge

16 A 7 m ladder leans against a vertical wall and reaches 6 m up the wall. Work out the angle the ladder makes with the horizontal ground, to 1 decimal place. **[4 marks]**

Answer _____

17 From a point 48 m from the base of a tower the angle of elevation of the top is 33°. Work out the height of the tower, to 3 significant figures. **[4 marks]**

Answer _____

18 An isosceles triangle has a base of 9 cm and base angles of 60°. Work out the perpendicular height of the triangle, to 3 significant figures. **[5 marks]**

Answer _____

19 A ship sails 52 km on a bearing of 040°. How far north of its starting point is it? Give your answer to 3 significant figures. **[5 marks]**

Answer _____

20 A flagpole casts a shadow 20 m long when the sun's angle of elevation is 36°. Work out the height of the flagpole, to 3 significant figures. **[4 marks]**

Answer _____