Mathematics

The case of 30 and 60 degrees

Dr Rim Saada
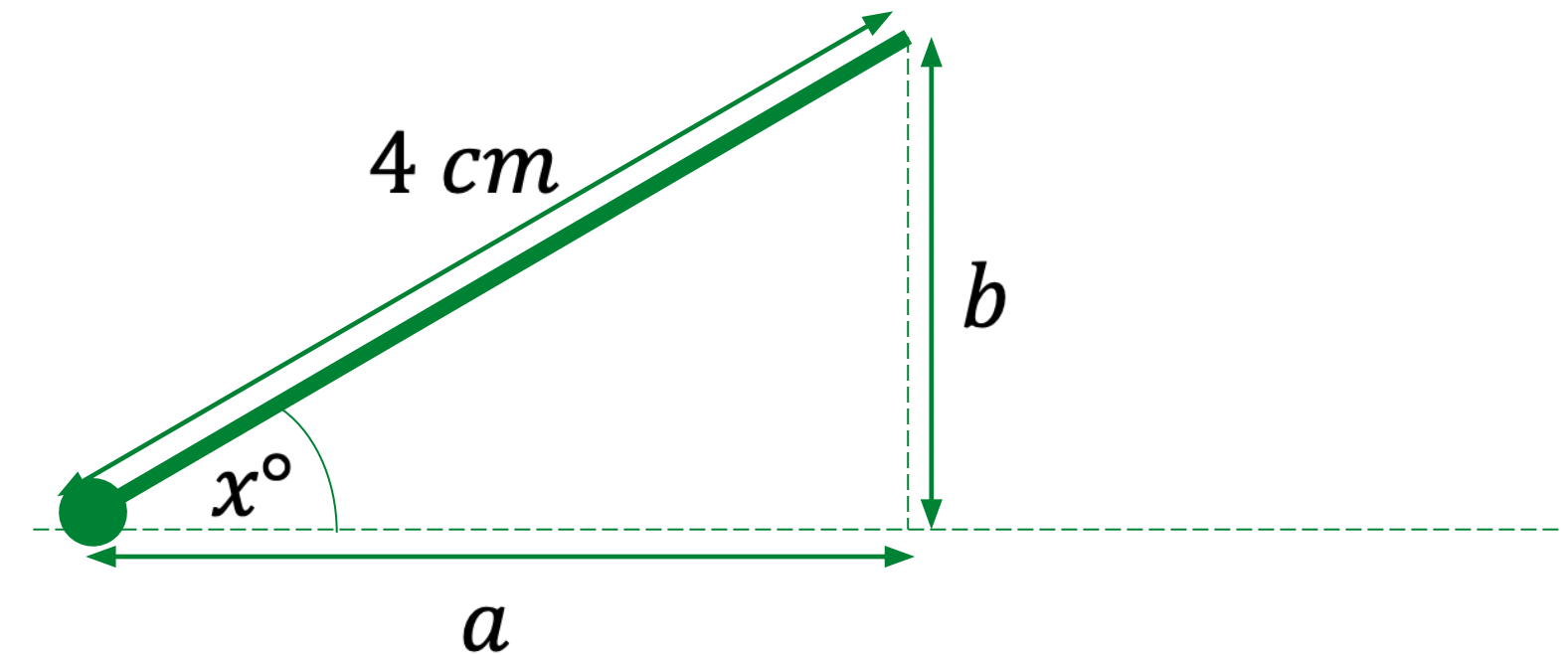
Try this

Can you construct a right-angled triangle where a is half the size of the hypotenuse?

Can you construct a right- angled triangle where b is half the size of the hypotenuse?
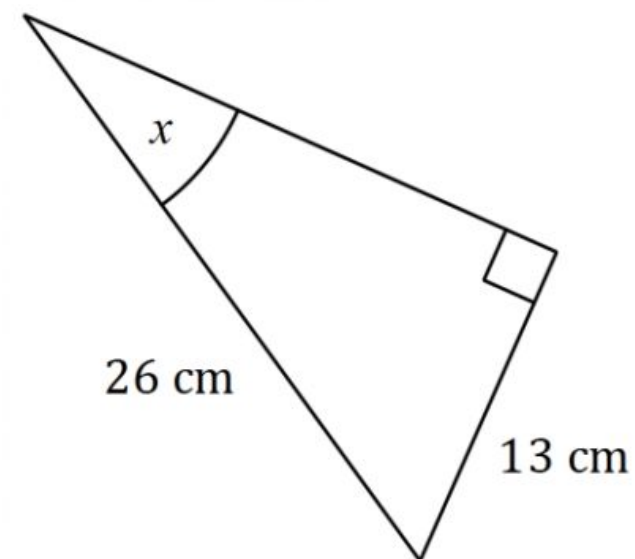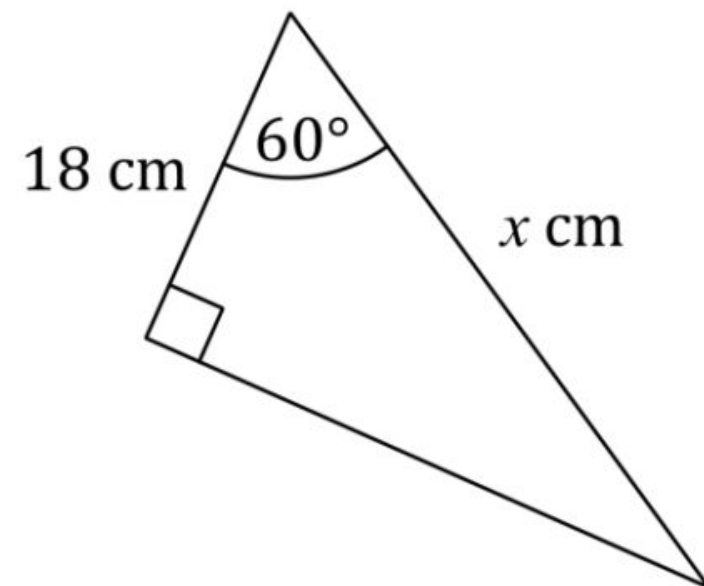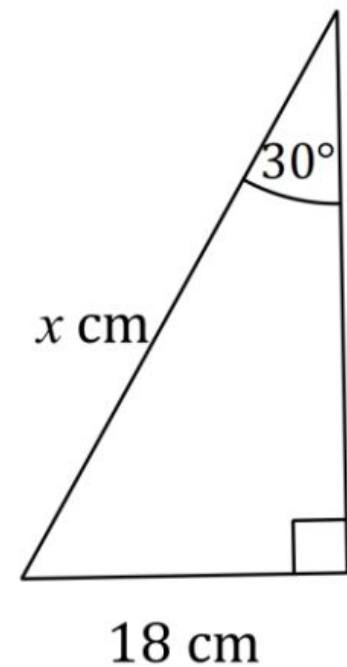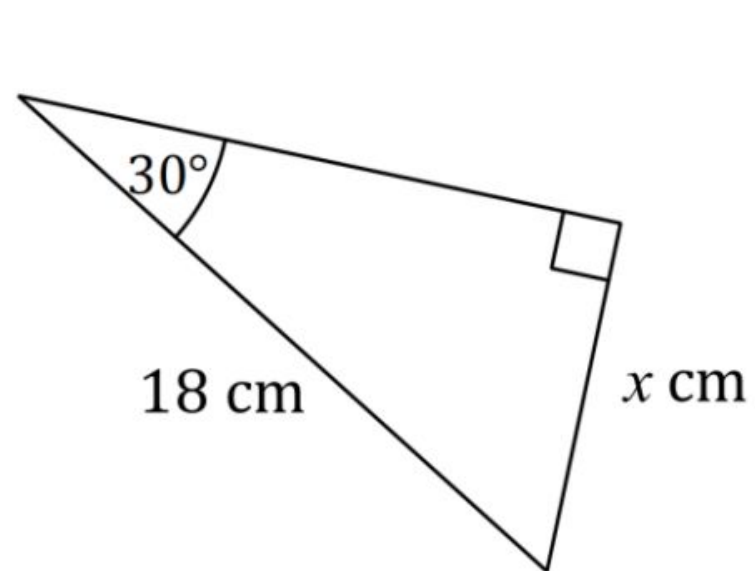
What is the size of angle x in each case?

Hint: Think about the explore task from Lesson 5

Independent task
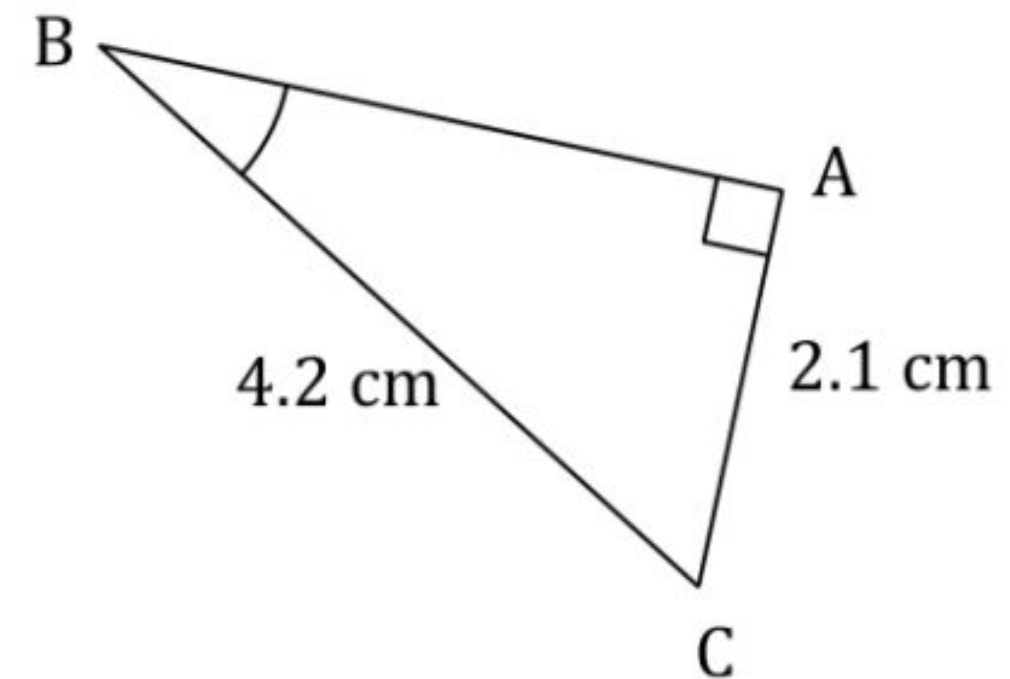
1) Calculate the marked sides and angles in these triangles:

2) True or false?

$\angle$ ABC = 60°

Explain your answer.

Explore

How many similar right angle triangles are there in the diagram?

What relationships can you find between the side lengths within and between the triangles?

Find as many missing side lengths as you can.