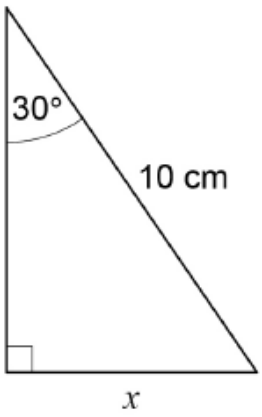
**AQA – Mensuration and calculations – GCSE Mathematics Paper_1**

**1.** June/2021/Paper_1F/No.31

Here is a right-angled triangle.




Not drawn accurately

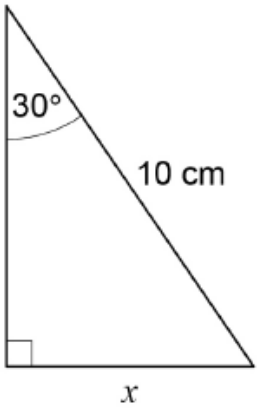
Use trigonometry to work out the value of $x$.

**[3 marks]**

Answer _____ cm

**2.** June/2021/Paper_1H/No.12

Here is a right-angled triangle.




Not drawn accurately

Use trigonometry to work out the value of $x$.

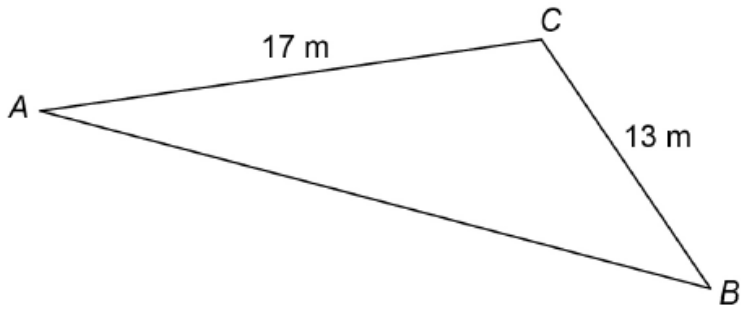
**[3 marks]**

Answer _____ cm

**3.** June/2021/Paper_1H/No.18

**(a)** Here is a triangle.

Not drawn accurately

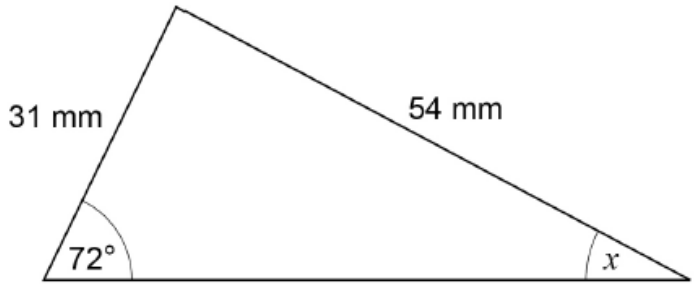



Give a reason why the length of side *AB* **cannot** be 35 m

**[1 mark]**

**(b)** Here is a different triangle.

Not drawn accurately




Leah tries to use the sine rule to work out the size of angle $x$.

Here are the first two lines of her working.

$$\frac{x}{\sin 31} = \frac{54}{\sin 72}$$

$$x = \frac{54 \sin 31}{\sin 72}$$

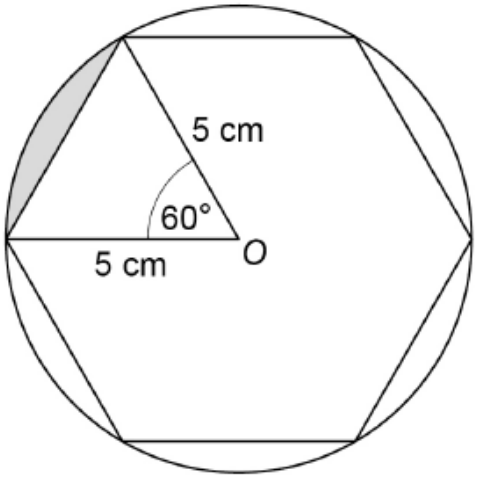
What error has she made in this working?

**[1 mark]**

**4.** June/2021/Paper_1H/No.27

The vertices of a regular hexagon lie on a circle with centre $O$ and radius 5 cm

Not drawn accurately




Work out the shaded area.

Give your answer in the form $\dfrac{a\pi - b\sqrt{c}}{12}$ where $a$, $b$ and $c$ are integers.

**[4 marks]**

Answer _____ $cm^2$