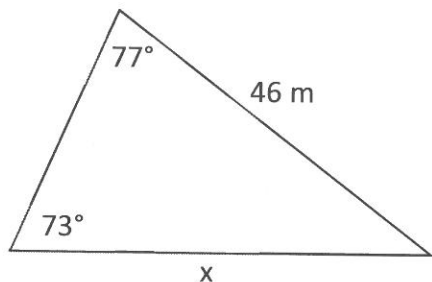


### Example 2

Determine the length of the side labelled  $x$ .



You have a set of partners GIVEN (the  $73^\circ$  and the  $46\text{ m}$ ). This is what tells you to use the sine law. Put the partners in a fraction (side on top), and set up the second fraction with the other set of partners (the required side ' $x$ ' and the  $77^\circ$ ):

$$\frac{46}{\sin 73^\circ} = \frac{x}{\sin 77^\circ}$$

Cross-multiply and divide to find the answer:

$$\begin{aligned}x &= 46 \times \sin 77^\circ \div \sin 73^\circ \\x &= \mathbf{46.87\text{ m}}\end{aligned}$$