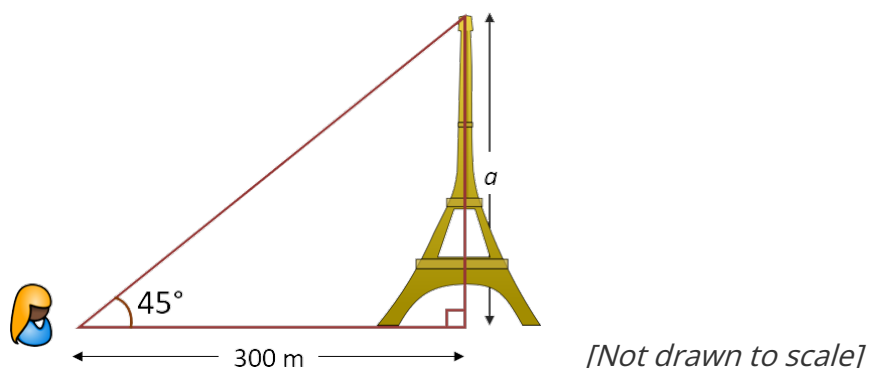


## Calculating distance III

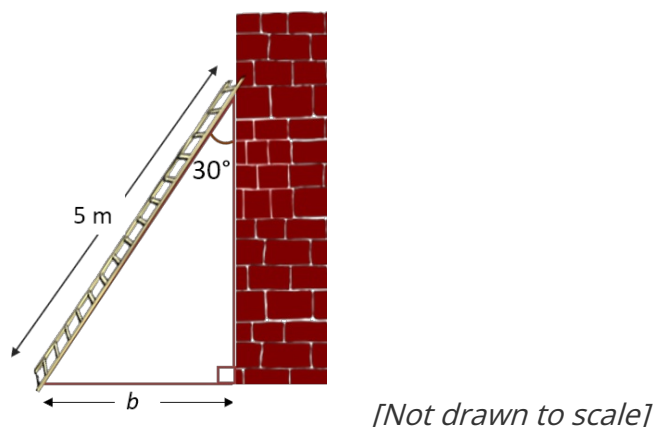
This task is about using trigonometry to calculate distances in practical problems.

- a) Emily was standing 300 metres from the Eiffel Tower.  
The angle from where she stood to the top of the tower was  $45^\circ$ .



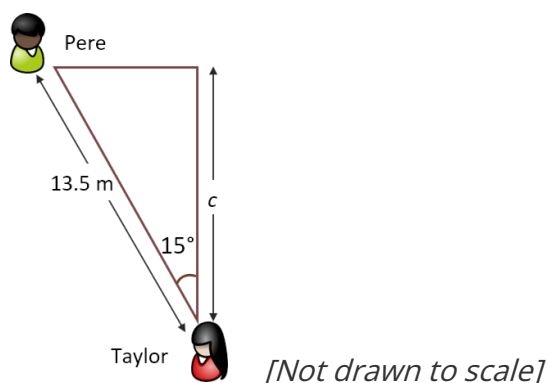
Calculate the height of the Eiffel Tower, as shown by 'a'.  m

- b) The top of a 5-metre ladder makes an angle of  $30^\circ$  with the side of a building.



Calculate the distance the ladder is from the building at ground level, as shown by 'b'.  m

- c) Taylor walks across a road at an angle of  $15^\circ$  and a distance of 13.5 metres to Pere on the other side.



How wide is the road, as shown by 'c'?  m