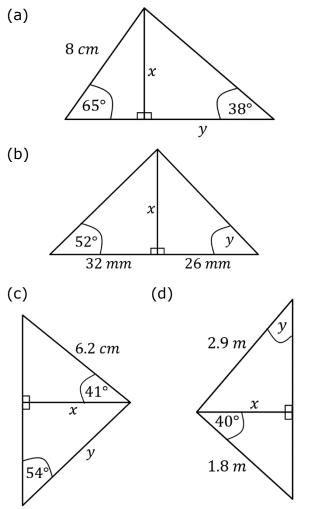
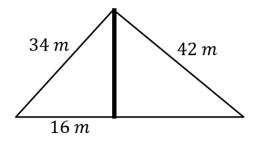
## Multi-Step Trigonometry Problems

Find the missing lengths and angles in these diagrams.



A vertical mast is held in position by two cables of lengths 34 m and 42m, as shown in the diagram.

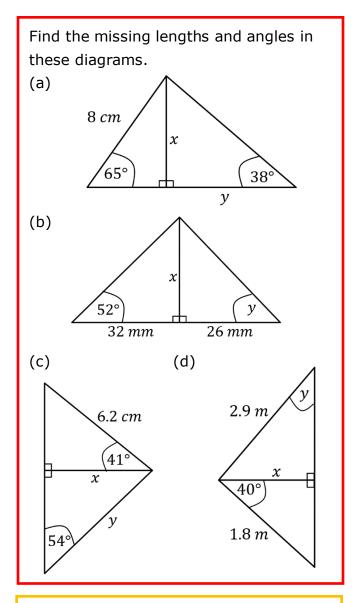


(a) Calculate the height of the mast

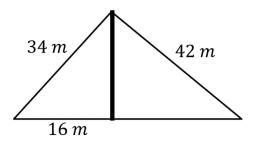
(b) Calculate the angle the horizontal makes with the 34 m cable.

(c) Calculate the horizontal distance from the foot of the mast to the 42 m cable.

## **Multi-Step Trigonometry Problems**



A vertical mast is held in position by two cables of lengths 34 m and 42m, as shown in the diagram.



(a) Calculate the height of the mast

(b) Calculate the angle the horizontal makes with the 34 m cable.

(c) Calculate the horizontal distance from the foot of the mast to the 42 m cable.