**Multi-Step Trigonometry Problems**

Find the missing lengths and angles in these diagrams.

(a)

(b)

(c) (d)

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.

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