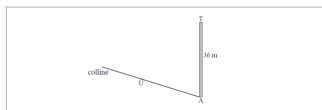


IB Geometry and Trigonometry Problem 007

At the foot of a hill stands a vertical tower TA of height 36 m . A straight path climbs the hill from A to a point U . This information is shown in the following figure.

The figure is not to scale.



The path makes an angle of 4° with the horizontal.

Point U on the path is 25 m from the base of the tower.

The top of the tower is connected to U by a cable of length x (in m).

- Complete the figure by clearly showing the information above.
- Find x .