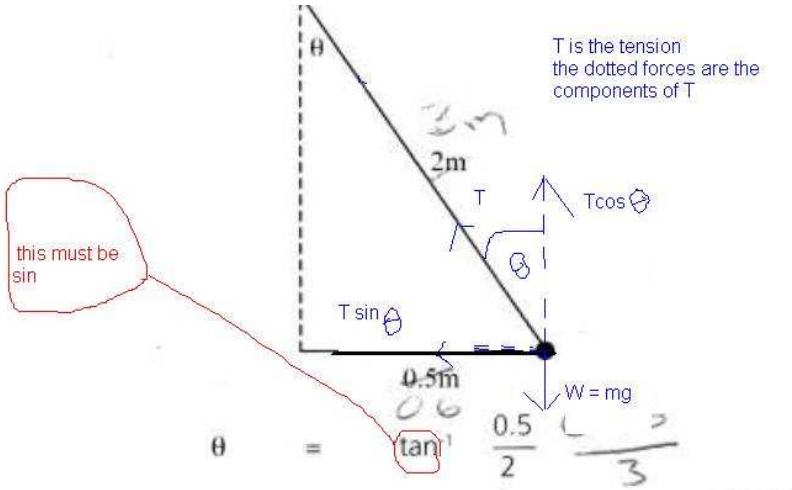
1



T is the tension
the dotted forces are the components of T

this must be sin

$\theta = \tan^{-1}\frac{0.5}{2}$

$= 14°$

bob does not acc up or down, hence..... $T\cos\theta = mg$

$T = \frac{mg}{\cos\theta}$