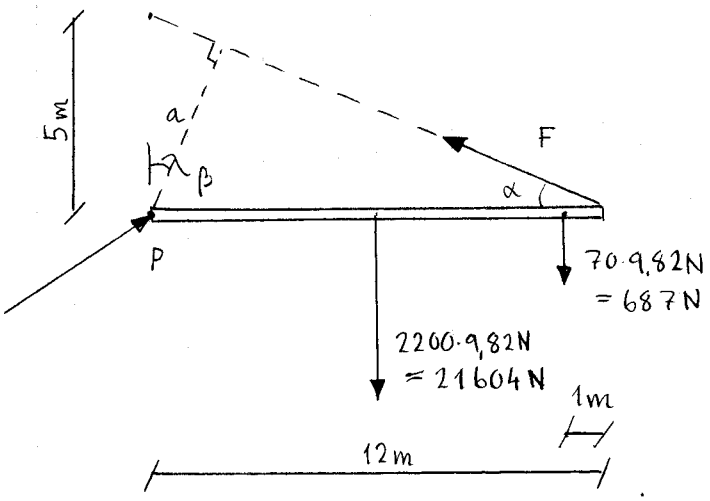
4.36



$\tan\alpha = \frac{5}{12} \Rightarrow \alpha = 22,62°$

$\beta = \alpha = 22,62°$ (likbenmiga trianglar)

$\cos\beta = \frac{a}{5m}$

$\Rightarrow a = 5m \cdot \cos 22,62°$

$= 4,62m$

Momentpunkt P

$\curvearrowright M = 21604N \cdot 6m + 687N \cdot 11m = 137181Nm$

$\curvearrowleft M = F \cdot 4,62m$

Momentjämvikt ($\curvearrowright M = \curvearrowleft M$) ger:

$F \cdot 4,62m = 137181Nm \Rightarrow F = \frac{137181}{4,62} N = 30 \cdot 10^3 N$

Svar: Ja, byggnadsarbetaren lever farligt. Kraften i kabeln är 30kN.