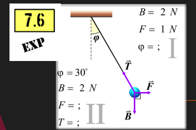
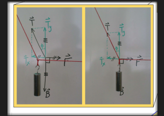
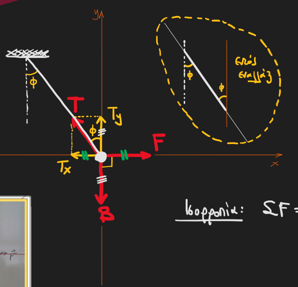
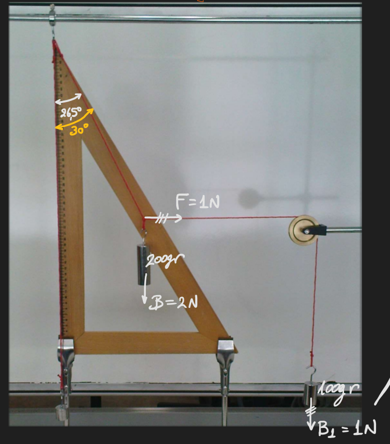






(I) $\varphi = ;$

Ισορροπία: $\Sigma F = 0$ $\begin{cases} \Sigma F_x = 0 \\ \Sigma F_y = 0 \end{cases}$ $\begin{cases} F = T_x \\ B = T_y \end{cases}$ $\begin{cases} F = T \cdot \eta\mu\phi \\ B = T \cdot \sigma\upsilon\nu\phi \end{cases}$ $\begin{cases} 1 = T \cdot \eta\mu\phi \\ 2 = T \cdot \sigma\upsilon\nu\phi \end{cases}$ $\div$ $\frac{1}{2} = \frac{T \cdot \eta\mu\phi}{T \cdot \sigma\upsilon\nu\phi} \Rightarrow \boxed{\frac{1}{2} = \varepsilon\phi\phi} \rightarrow \boxed{\phi \approx 26{,}5^\circ}$



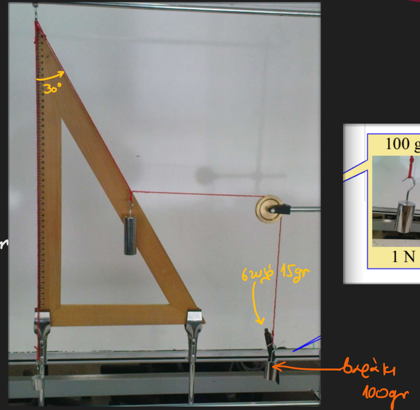
$100gr = 0{,}1kg \xrightarrow{\times g=10} 1\ N$

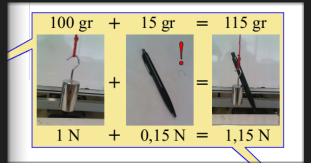
II) $B = 2N$, $\phi = 30^\circ$, $F = ;$, $T = ;$ — το ίδιο σχήμα + τις ίδιες γνώσεις

Ισορροπία: $\Sigma F = 0$ $\begin{cases} \Sigma F_x = 0 \\ \Sigma F_y = 0 \end{cases}$ $\begin{cases} F = T_x \\ B = T_y \end{cases}$ $\begin{cases} F = T \cdot \eta\mu\phi \\ B = T \cdot \sigma\upsilon\nu\phi \end{cases}$ $\begin{cases} F = T \cdot \eta\mu 30^\circ \\ 2 = T \cdot \sigma\upsilon\nu 30^\circ \end{cases}$ $\begin{cases} F = T \cdot \frac{1}{2} \\ 2 = T \cdot \frac{\sqrt{3}}{2} \end{cases}$ $\rightarrow 2 \cdot 2 = T\sqrt{3} \Rightarrow T\sqrt{3} = 4 \rightarrow \boxed{T = \frac{4}{\sqrt{3}}\ N}$

$\rightarrow F = \frac{4}{\sqrt{3}} \cdot \frac{1}{2} \Rightarrow \boxed{F = \frac{2}{\sqrt{3}}\ N} \Rightarrow \boxed{F = 1{,}15\ N} \xleftrightarrow{g = 10\ m/s^2} 0{,}115\ kg = 115\ gr$

άρα αν βάλω στο αρχικό μου βαρίδι των 100gr, 15gr ακόμα τότε θα έχω 115 gr
άρα 1,15 N = F και επομένως το νήμα θα [illegible] στις 30°





$1{,}15N \longleftrightarrow \boxed{115\ g}$

$B = m \cdot g$

$10\ N = 1kg \cdot 10\ \frac{m}{s^2}$

$\boxed{1kg \Leftrightarrow 10N} \rightsquigarrow \boxed{0{,}1kg = 100gr \Leftrightarrow 1N}$

1 μήλο ≈ 100gr

$B_{1\,\mu\eta\lambda o\upsilon} \approx 1N$