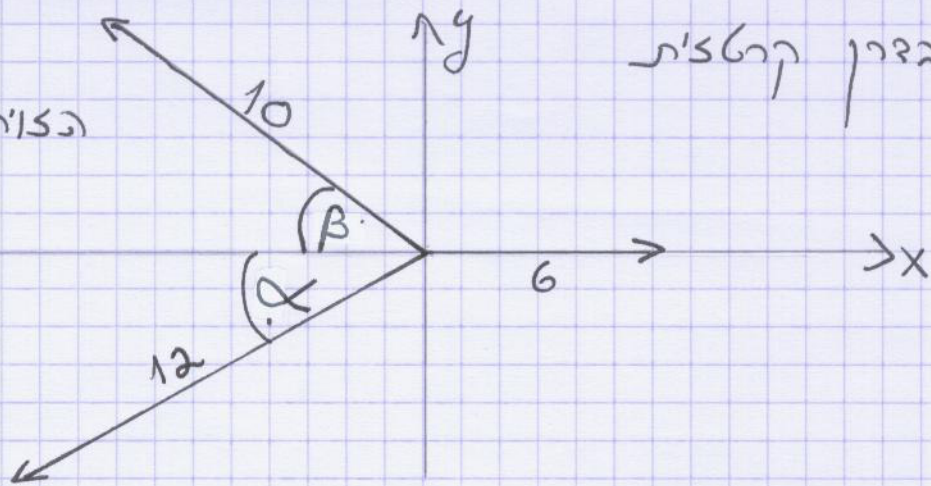


כיתרון בזמן קרטזית

הכוחות האבודקלות:

$\alpha + \beta$



$\Sigma F = 0$

$\Sigma F_x = 0$

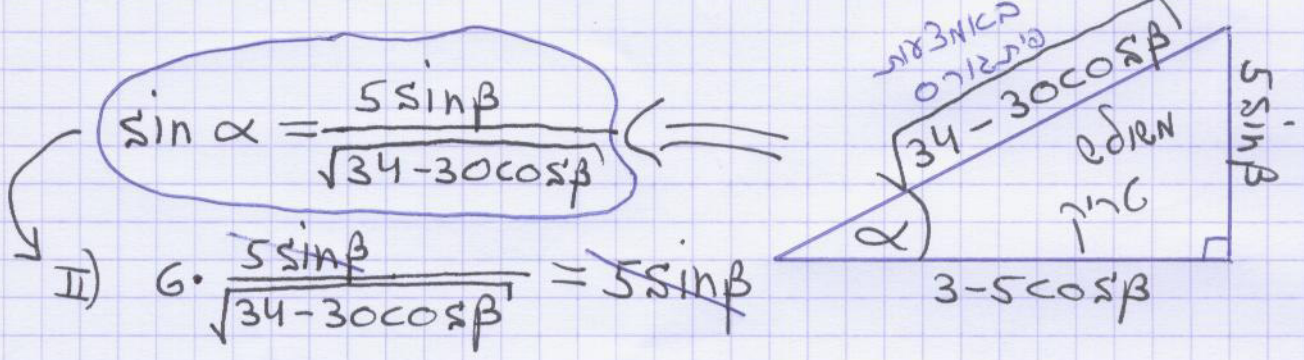
$\Sigma F_y = 0$

I) $12 \cos \alpha + 10 \cos \beta = 6$ II) $12 \sin \alpha = 10 \sin \beta$

I) $6 \cos \alpha + 5 \cos \beta = 3$ II) $6 \sin \alpha = 5 \sin \beta$

אם כן אולי לא נכונה!

$\frac{II}{I} \Rightarrow \frac{6 \sin \alpha}{6 \cos \alpha} = \frac{5 \sin \beta}{3 - 5 \cos \beta} \Rightarrow \tan \alpha = \frac{5 \sin \beta}{3 - 5 \cos \beta}$



$\sin \alpha = \frac{5 \sin \beta}{\sqrt{34 - 30 \cos \beta}}$

II) $6 \cdot \frac{5 \sin \beta}{\sqrt{34 - 30 \cos \beta}} = 5 \sin \beta$

$6 = \sqrt{34 - 30 \cos \beta} \Rightarrow 36 = 34 - 30 \cos \beta \Rightarrow$

$\Rightarrow 30 \cos \beta = -2 \Rightarrow \cos \beta = -\frac{1}{15} \Rightarrow \beta = 93.82^\circ$

II) $\sin \alpha = \frac{5 \sin \beta}{6} = 0.83 \Rightarrow \alpha = 56.25^\circ$

$90^\circ < \beta$

$\alpha + \beta = 150.07^\circ$