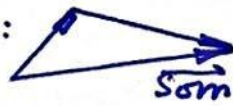
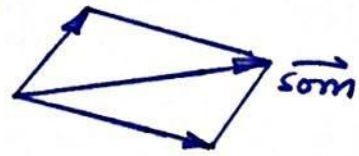


* vectoren optellen

kop/staart:

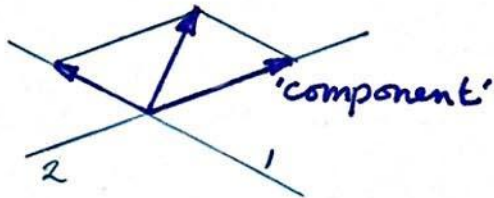


parallellogram:

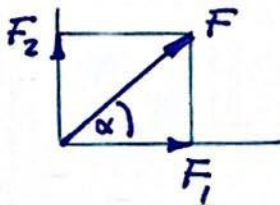


* vectoren ontbinden

inrichting 1 en 2



Als 1 en 2 loodrecht op elkaar:



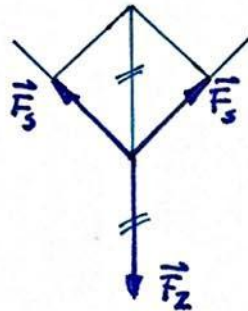
$$\sin \alpha = F_2 / F$$

$$\cos \alpha = F_1 / F$$

$$\tan \alpha = F_2 / F_1$$

$$F_1^2 + F_2^2 = F^2$$

Als 1 en 2 symmetrisch:



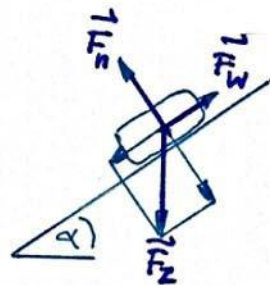
* Teken alle krachten (maak het 'vrij')

NB hellend vlak

evenwicht als:

$$F_n = F_z \cos \alpha$$

$$F_w = F_z \sin \alpha$$



NB Een touw kan alleen trekken

Een glad vlak kan alleen dwars duwen