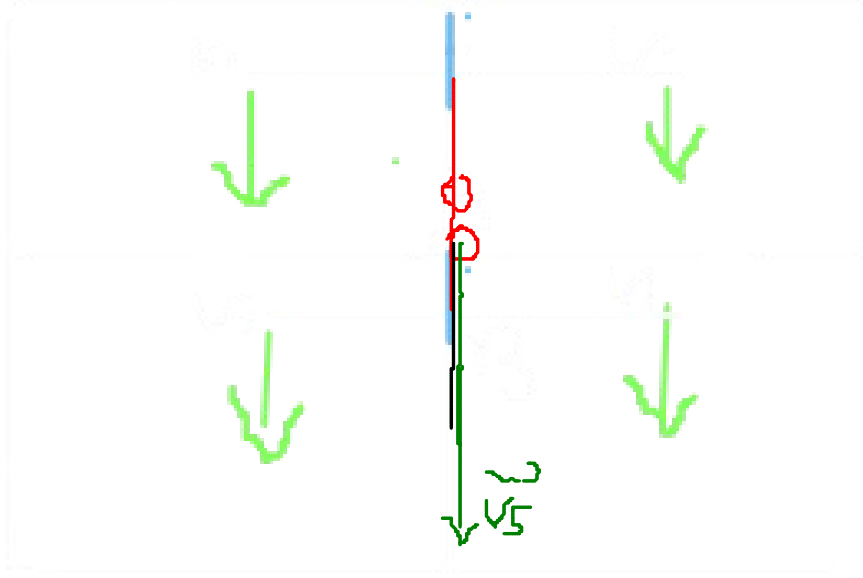
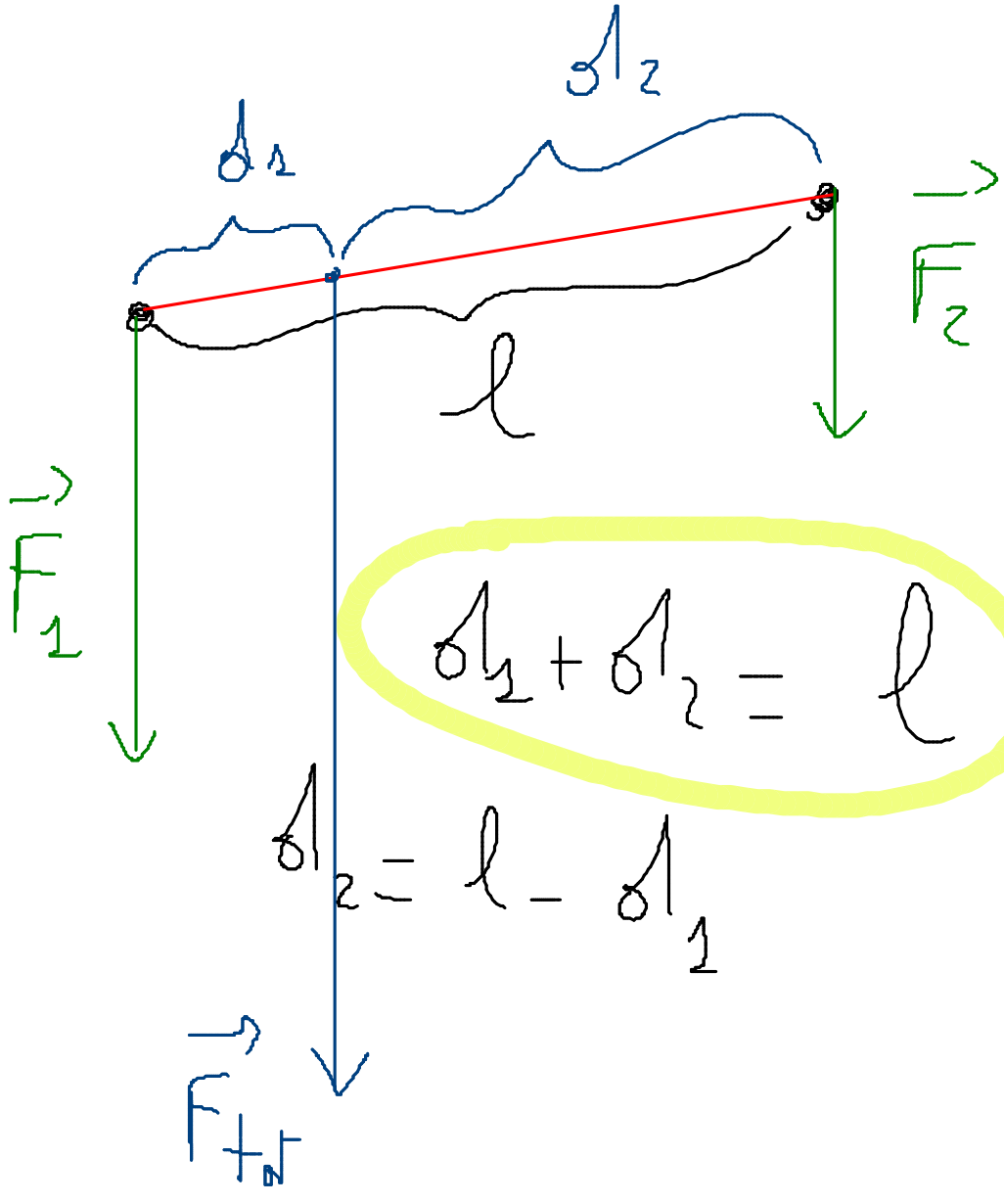

V5



$$F_1 d_1 = F_2 d_2$$

$$d_1 + d_2 = l$$

$$d_2 = l - d_1$$

$l = 10\ cm$

$F_1 = 20\ N$

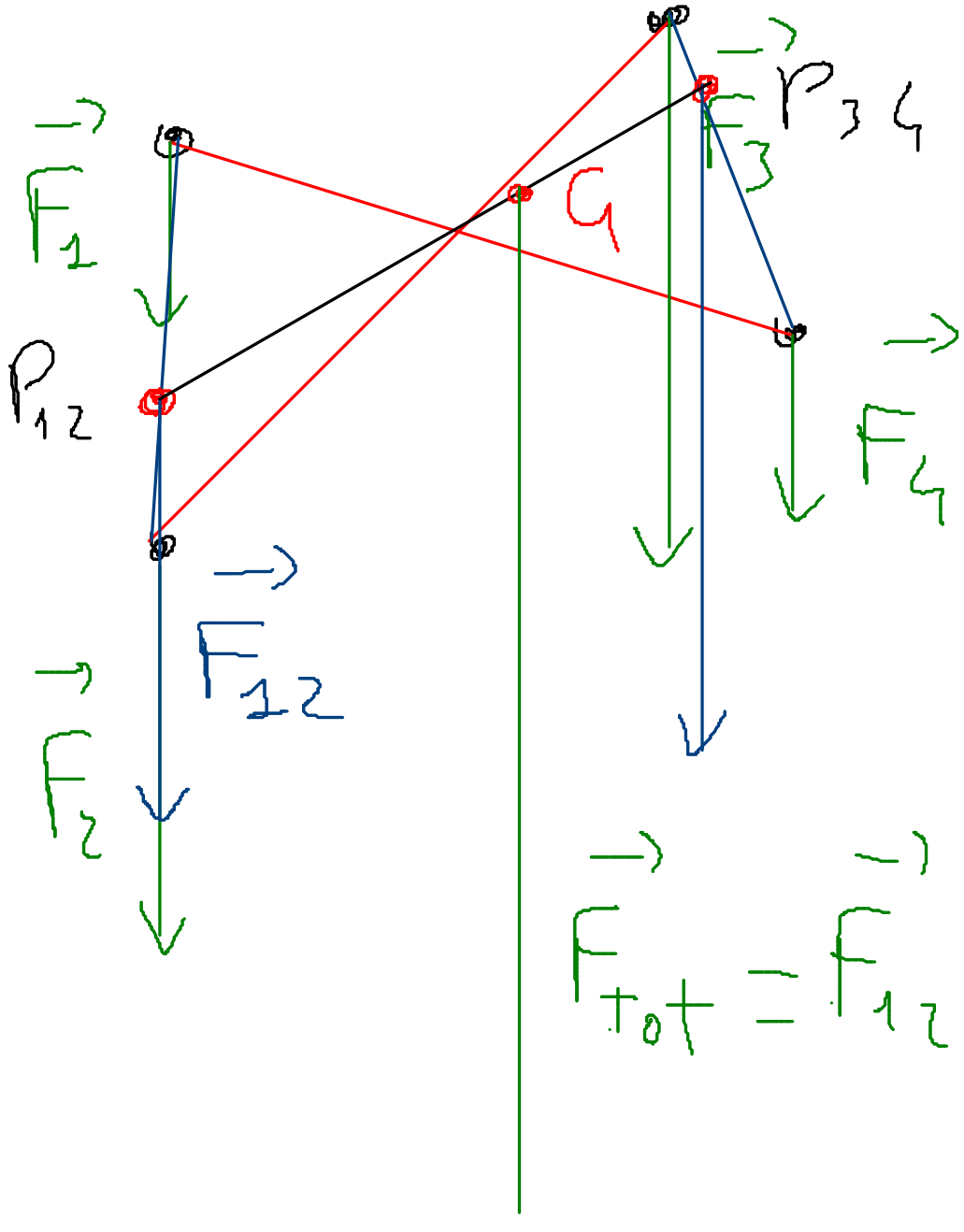
$F_2 = 8\ N$

$$F_1 d_1 = F_2 (l - d_1)$$

$$F_1 d_1 = F_2 l - F_2 d_1$$

$$d_1 (F_1 + F_2) = F_2 l$$

$$d_1 = l \frac{F_2}{F_1 + F_2} = 10\,см \frac{8}{20+8} = \frac{20}{7}\,см$$



$$\vec{F}_{12} = \vec{F}_1 + \vec{F}_2$$

$$\vec{F}_{34} = \vec{F}_3 + \vec{F}_4$$

$$\vec{F}_{tot} = \vec{F}_{12} + \vec{F}_{34}$$