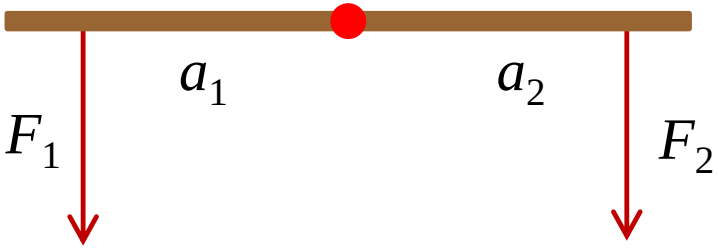
VÝPOČTY NA PÁCE

Př. Vypočítej sílu F_1



F_1 = ?

F_2 = 50 N

a_1 = 30 cm

a_2 = 45 cm

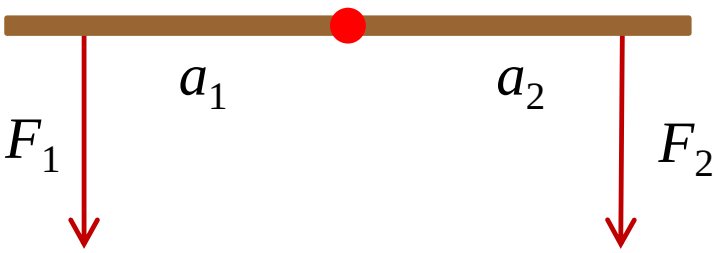
$$F_1 \cdot a_1 = F_2 \cdot a_2$$

$$F_1 \cdot 30 = 50 \cdot 45$$

$$F_1 = \frac{50 \cdot 45}{30} \text{ N}$$

$$F_1 = 75 \text{ N}$$

Př. Vypočítej sílu F_2



$F_1 = 350$ N

$F_2 = ?$

$a_1 = 80$ cm $= 0{,}8$ m

$a_2 = 1{,}2$ m

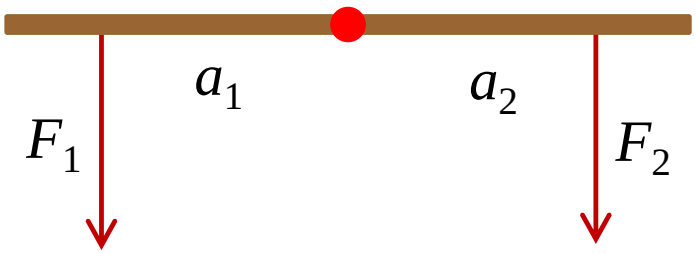
$$F_1 \cdot a_1 = F_2 \cdot a_2$$

$$350 \cdot 0{,}8 = F_2 \cdot 1{,}2$$

$$F_2 = \frac{350 \cdot 0{,}8}{1{,}2} \text{ N}$$

$$F_2 = 233{,}3 \text{ N}$$

Př. Vypočítej rameno a_1



$F_1 = 2{,}5\ \text{kN} = 2500\ \text{N}$

$F_2 = 950\ \text{N}$

$a_1 = ?$

$a_2 = 60\ \text{dm}$

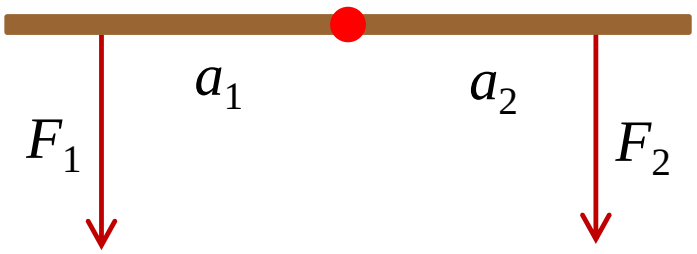
$$F_1 \cdot a_1 = F_2 \cdot a_2$$

$$2500 \cdot a_1 = 950 \cdot 60$$

$$a_1 = \frac{950 \cdot 60}{2500}\ \text{dm}$$

$$a_1 = 22{,}8\ \text{dm}$$

Př. Vypočítej rameno a_2



$F_1 = 12$ kN

$F_2 = 35$ kN

$a_1 = 35$ mm

$a_2 = ?$

$$F_1 \cdot a_1 = F_2 \cdot a_2$$

$$12 \cdot 35 = 35 \cdot a_2$$

$$a_2 = \frac{12 \cdot 35}{35} \text{ mm}$$

$$a_2 = 12 \text{ mm}$$