

Exercici 4

a)

$$\tau = \frac{\omega_{\text{roda}}}{\omega_{\text{motor}}} = \frac{z_1 z_3 z_5}{z_2 z_4 z_6} = 92,67 \times 10^{-3}$$

b)

$$\omega_{\text{roda}} = \tau \omega_{\text{mot}} = \tau \frac{n_{\text{mot}} 2\pi}{60}$$

$$v = \omega_{\text{roda}} \frac{d}{2} = 11,65 \text{ m/s} = 41,92 \text{ km/h}$$

c)

$$P_{\text{útil}} = P_{\text{mot}} \eta; \quad \Gamma = \frac{P_{\text{útil}}}{\omega_{\text{roda}}} = 347,8 \text{ Nm}$$