

(a) Si  $\nu = 6,0 \text{ Hz}$  i  $a_{\text{max}} = 6,0 \text{ m/s}^2$ , busquem l'amplitud

$$a_{\text{max}} = A\omega^2 = A(2\pi\nu)^2, \text{ d'aquí:}$$

$$A = \frac{a_{\text{max}}}{(2\pi\nu)^2} = \frac{6,0}{(2\pi \cdot 6,0)^2} = 4,22 \times 10^{-3} \text{ m} = \boxed{4,22 \text{ mm}}$$

(b) Busquem  $k$ , si  $m = 85 \text{ kg}$  oscil·la amb  $\nu = 6,0 \text{ Hz}$

$$k = m\omega^2 = m(2\pi\nu)^2 = 85 \cdot (2\pi \cdot 6)^2 = \boxed{120804 \text{ N/m}}$$