

I. 能量守恒

$$mgh_1 + \frac{1}{2}mv_1^2 + \frac{1}{2}kx_1^2 = mgh_2 + \frac{1}{2}mv_2^2 + \frac{1}{2}kx_2^2$$

$$50 \times 10 \times 10 + \frac{1}{2} \times 50 \times 20^2 + 0 = 0 + 0 + \frac{1}{2}k \times 10^2$$

$$\Rightarrow k = 300 \text{ N/m}$$

至少為 300 N/m ✖