

小テスト解答

Q1: 30 kJ

Q2: 1.5 J

Q3: (1) $\Delta U_g = \frac{1}{2}mgh$

(2) $\Delta U_s = \frac{1}{2}kx^2 = \frac{1}{4}kh^2$

(3) ばねの反力が重力の斜面成分と釣り合っているから,

$$\frac{mg}{\sqrt{2}} = \frac{\sqrt{2}}{2}kh \quad \therefore k = \frac{mg}{h}$$