

72

(1)  $k = \frac{1}{2}mv^2 = \frac{1}{2} \times 2000 \times 340^2 = 115600000 = 1.2 \times 10^8 [\text{J}]$

(2) 位置エネルギーを求める式は

$$U = mgh (\text{教科書 30 ページ (1.28)})$$

重力加速度を  $9.8\text{m/s}^2$

$$m = 2000\text{kg}$$

$$h = 3000\text{m}$$

$$U = mgh = 2000 \times 9.8 \times 3000 = 58800000 = 5.9 \times 10^7 [\text{J}]$$