

小テスト解答

Q1 (1) $\theta = t^2$ [rad] (2) 14 m/s^2 (3) 7.0 m/s^2 (4) 5.0 s

Q2 (1) $T = mg - ma$ (2) $T = \frac{I\alpha}{R} = \frac{Ia}{R^2}$ (3) $\omega = \sqrt{\frac{2mgh}{I + mR^2}}$

Q3 $3 \cdot \begin{vmatrix} i & j & k \\ 1 & -3 & 0 \\ 3 & 4 & 0 \end{vmatrix} = \begin{pmatrix} 0 \\ 0 \\ 39 \end{pmatrix} \text{ kgm}^2/\text{s}$

Q4 0.65 rad/s