

物 理

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解答

I. (1) $T_1 L \cos \theta$ (2) $T_1 L \cos \theta = Mg \frac{L}{2} \cos \theta$

(3) $\frac{1}{2}Mg$ (4) $\frac{1}{3}Mg$ (5) $\frac{2}{3}Mg$

II. (6) $\beta - \alpha$ (7) $T_3 L \sin(\beta - \alpha)$

(8) $Mg \frac{L}{2} \cos \alpha = T_3 L \sin(\beta - \alpha)$

(9) $\frac{Mg \cos \alpha}{2 \sin(\beta - \alpha)}$ (10) $\frac{1}{3\sqrt{3}}$

2

解答

I. (1) $G \frac{Mm}{R^2}$ (2) $\frac{gR^2}{M}$

II. (3) $\sqrt{gR}$ (4) $2\pi \sqrt{\frac{R}{g}}$

III. (5) $-m'gR$ (6) $\frac{1}{2}m'v_2^2 - m'gR$

(7) $\frac{1}{2}m'v_3^2 - \frac{1}{3}m'gR$ (8) $\sqrt{\frac{gR}{6}}$

IV. (9) $\sqrt{\frac{gR}{3}}$ (10) $6\pi \sqrt{\frac{3R}{g}}$