

物理

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解答

(1) $\frac{V}{R}$ (2) 0 (3) $-I$ (4) $\frac{1}{2}CV^2$

(5) $-Q$ (6) $\frac{1}{2}LI^2$ (7) $V\sqrt{\frac{C}{L}}$

(8) $-I$ (9) $-Q$ (10) 0 (11) $2\pi\sqrt{LC}$ (12) $\frac{T}{2}$

2

解答

1. (1) 水平方向: $N_1 = T_1 \cos \theta$ 鉛直方向: $R_1 + T_1 \sin \theta = Mg$

(2) $Mg \cdot \frac{L}{2} = T_1 \cdot L \sin \theta$

(3) $T_1 = \frac{Mg}{2 \sin \theta}$, $N_1 = \frac{Mg \cos \theta}{2 \sin \theta}$, $R_1 = \frac{1}{2}Mg$

(4) μ

2. (5) $\frac{ML + 2mx}{2(M + m)}$

(6) $T_2 = \frac{\left(\frac{1}{2}ML + mx\right)g}{L \sin \theta_1}$, $N_2 = \frac{\left(\frac{1}{2}ML + mx\right)g}{L \tan \theta_1}$,

$R_2 = \left\{ \frac{1}{2}M + \left(1 - \frac{x}{L}\right)m \right\}g$

(7) $\frac{L}{2}$