

問題1

(1)

$$v_0 = \sqrt{2gh_0} \quad [\text{m/s}]$$

(2)

$$-\mu'g \quad [\text{m/s}^2]$$

(3)

$$\frac{V}{\mu'g} \quad [\text{s}]$$

(4)

$$\frac{V^2}{2\mu'g} \quad [\text{m}]$$

(5)

$$V = ev_0 + v_1 \quad [\text{m/s}]$$

(6)

$$mv_0 = mv_1 + MV$$

(7)

$$v_1 = \frac{m - eM}{m + M} v_0 \quad [\text{m/s}] \quad V = \frac{(e + 1)m}{m + M} v_0 \quad [\text{m/s}]$$

問題 2

(1)

$$\mu n \Delta I_1 A \quad [\text{Wb}]$$

(2)

$$\mu n^2 \ell A \frac{\Delta I_1}{\Delta t} \quad [\text{V}]$$

(3)

$$\mu n \frac{V_1}{R} \quad [\text{T}]$$

(4)

$$\frac{\epsilon S}{d} \quad [\text{F}]$$

(5)

電荷量	$\frac{\epsilon S V_2}{d}$	[C]
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エネルギー	$\frac{\epsilon S V_2^2}{2d}$	[J]
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(6)

$$\sqrt{\frac{\mu \epsilon S}{d \ell A}} V_2 \quad [\text{T}]$$