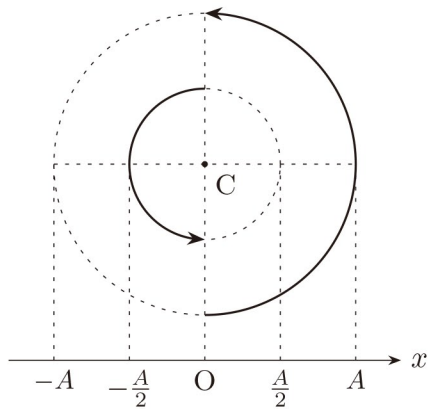


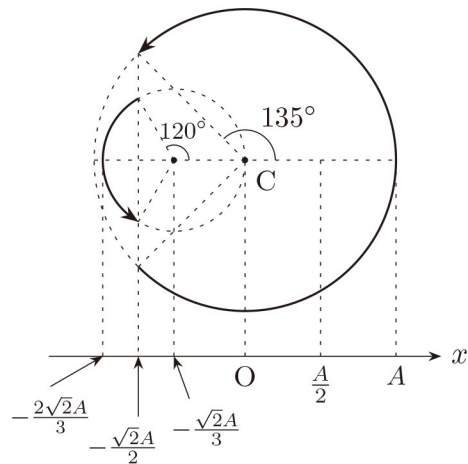
[I]

- | | | |
|----------------------------|--|----------------------------------|
| (ア) $A \cos \omega t$ | (イ) $-A\omega \sin \omega t$ | (ウ) $\frac{g}{\omega_0^2}$ |
| (エ) $-m\omega_0^2 x$ | (オ) $\frac{g}{4\omega_0^2}$ | (カ) $\frac{1}{4}m\omega_0^2 A^2$ |
| (キ) $-\frac{\sqrt{2}}{3}A$ | (ク) $\frac{27 + 4\sqrt{3}}{18} \frac{\pi}{\omega_0}$ | |

解答図 (I - A)



解答図 (I - B)



[II]

- | | | |
|-------------------------|---------------------------------------|--|
| (ア) $vL \cos \theta$ | (イ) $vBL \cos \theta$ | (ウ) $g \sin \theta - \frac{v(BL \cos \theta)^2}{mR_1}$ |
| (エ) $mgv_f \sin \theta$ | (オ) $-\frac{v_f BL \cos \theta}{R_1}$ | (カ) $-\frac{(R_1 + R_2)V}{R_1 R_2} + \frac{Q}{CR_1}$ |
| (キ) $\frac{R_2}{R_1}$ | (ク) $\frac{CR_2 mg \tan \theta}{BL}$ | |

[III]

- | | | | |
|---------------|---------------|---|--|
| (ア) $V_1 t_1$ | (イ) $V_2 t_1$ | (ウ) $\frac{V_1 t_1}{\sin \theta_1}$ | (エ) $\frac{V_2 t_1}{\sin \theta_2}$ |
| (オ) ut_0 | (カ) f_1 | (キ) $\frac{\sin \theta_2}{\sin \theta_1} \frac{V_0}{f_1}$ | (ク) $\left(\frac{1}{\sin \theta_1} - \frac{1}{\sin \theta_2} \right) V_0$ |