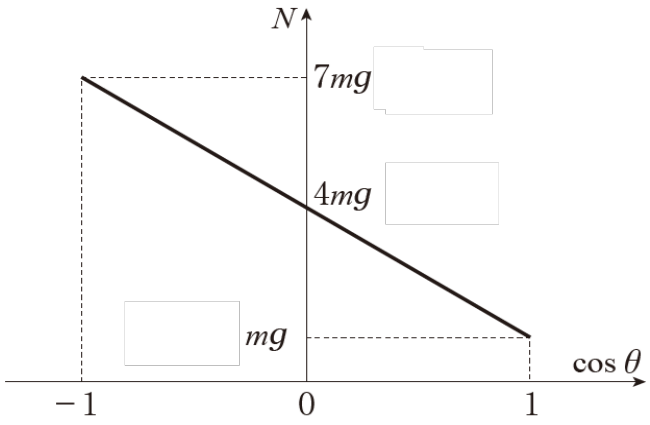
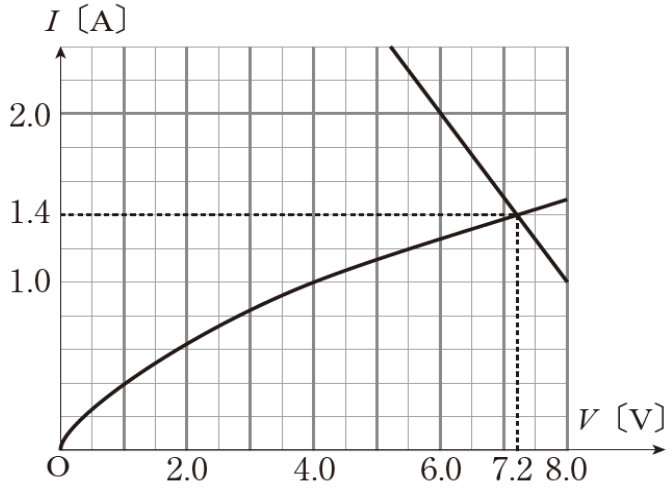
【1】

(1)	$\sqrt{2gh}$	(2)	$mg\left(3+\dfrac{2h}{r}\right)$	(3)	$h_0=\dfrac{3}{2}r$
(4)		(5)	$v=\sqrt{\dfrac{2Mg}{m+M}(h-r)}$ $V=\dfrac{m}{M}\sqrt{\dfrac{2Mg}{m+M}(h-r)}$		
(6)	$h_1=\dfrac{3M+2m}{2(m+M)}\cdot r$	(7)	①　$\sqrt{2}r$　②　右		
(8)	$h_2=\dfrac{12M+11m}{16(m+M)}\cdot r$				

【2】

〔A〕

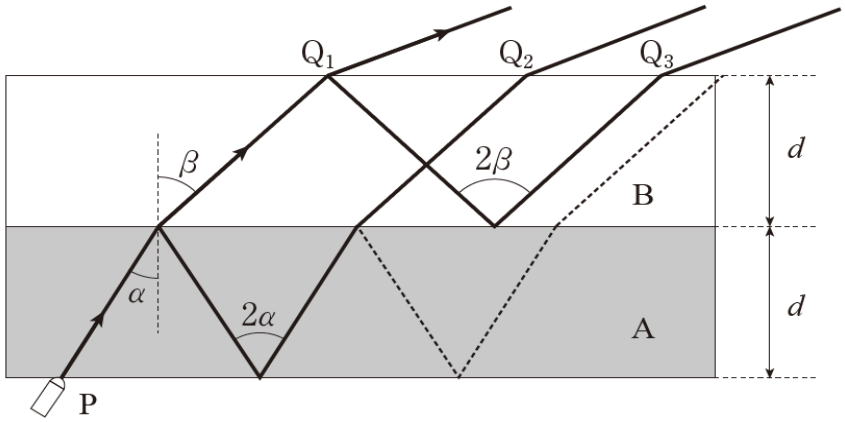
(1)	① 6.0　② 4.0　③ 1.0　④ 2.0	
(2)		1.4 A
(3)	3.6 A	(4)　3.0 A

〔B〕

(5)	$V_0=\frac{1}{2}Bl^2\omega,\quad$ 負，$\quad W_0=\frac{V_0^{\,2}}{2R}$		
(6)	$\frac{V_0}{5R}$	(7)	$\omega_0=\frac{1}{2}\omega$
(8)	$\omega_2=\frac{5}{6}\omega,\quad \omega_4=\frac{2}{3}\omega$		

【3】

〔A〕

(1)	$\sin\beta=\frac{n_0}{n_1}\sin\alpha,\quad \sin\gamma=n_0\sin\alpha$
(2)	$\sin\alpha_0=\frac{1}{n_0}$ (3) $\left(\frac{1}{n_0}+\frac{1}{n_1}\right)d$
(4)	
	$2d\left(\frac{n_0\sin\alpha}{\sqrt{n_1^{\,2}-n_0^{\,2}\sin^2\alpha}}-\tan\alpha\right)$

〔B〕

(5)	$d\sin\theta=m\lambda$	(6)	$\lambda_R=\frac{\sin\theta_2}{\sin\theta_1}\lambda_B$
(7)	$2\sqrt{2}\,\lambda_B\leqq d<3\sqrt{2}\,\lambda_B$	(8)	$\Delta\theta=-\frac{1-\cos\theta_1}{\cos\theta_1}\alpha$