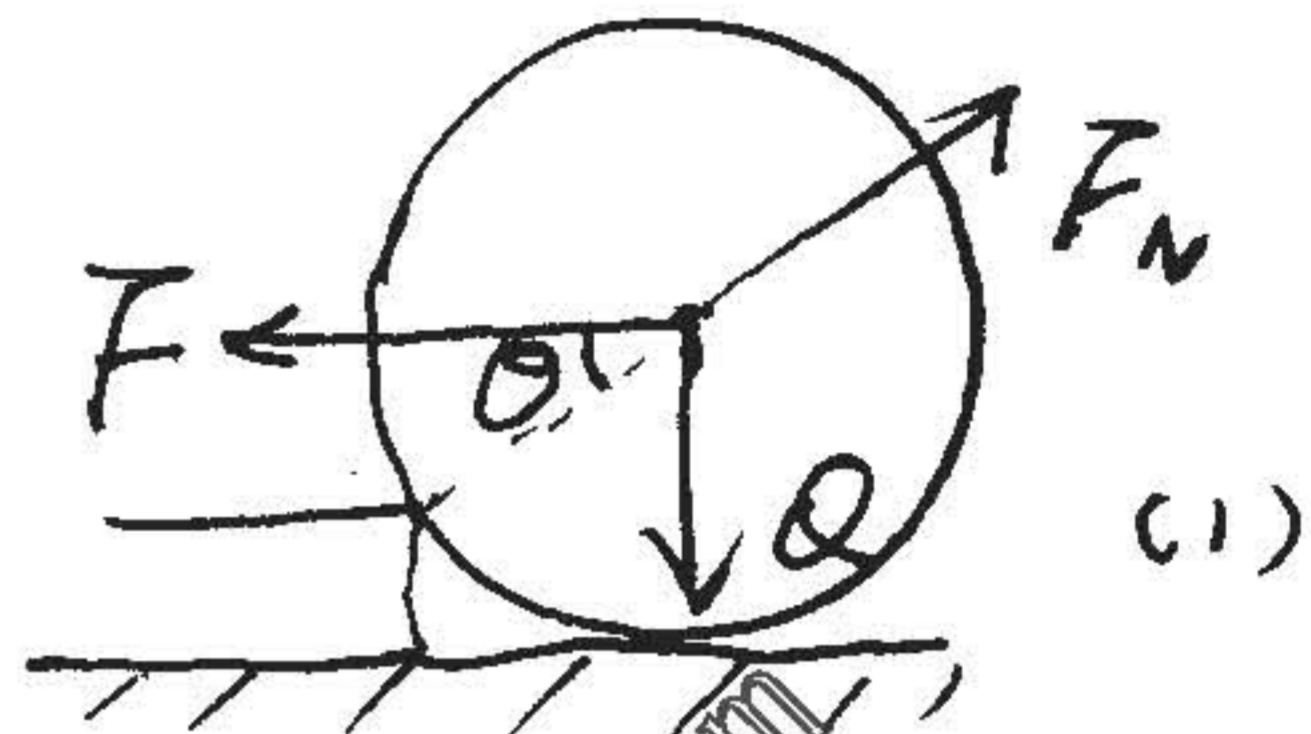


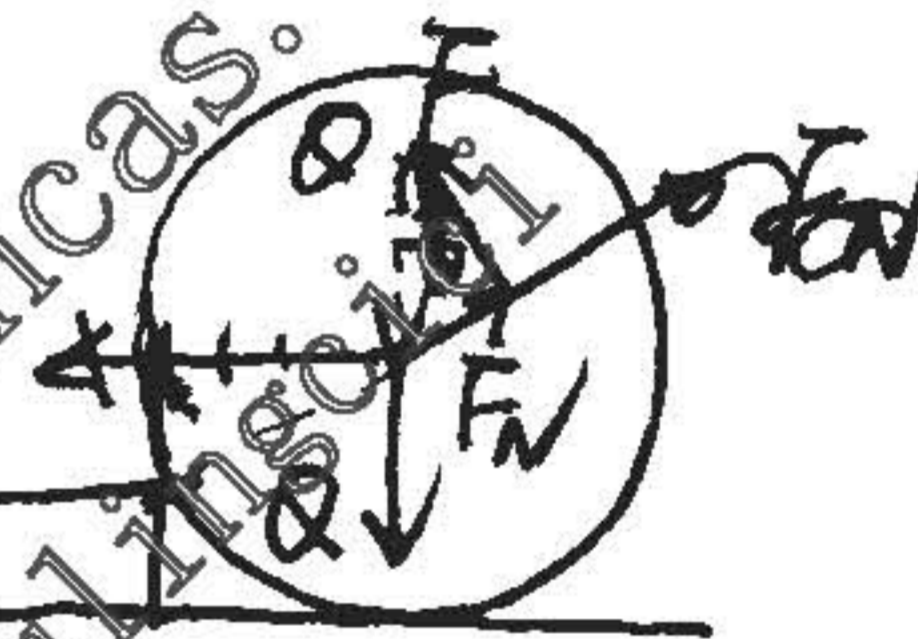
2012年试题答案

一 (1) $\frac{Q}{F} = \tan\theta = \frac{4}{3}, F = 20 \times \frac{3}{4} = 15 \text{ kN}$



(2) $F_{\min} = 20 \cos\theta = 20 \times \frac{3}{5} = 12 \text{ kN}$

与水平方向成 37°



二. $\vec{a}_m = \vec{a}_e + \vec{a}_r + \vec{a}_k, (a_r = 0)$

$a_e = \omega v \sin\theta = (b + v_r t) \omega \sin\theta$

$a_k = 2\omega v_r \sin\theta$



$\therefore a_m = \sqrt{a_e^2 + a_k^2} = \sqrt{(b + v_r t)^2 \omega^4 + 4\omega^2 v_r^2 \sin^2\theta}$