

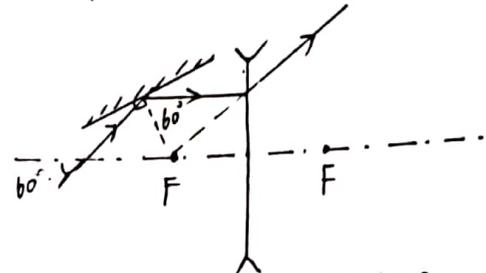
一、二、选择: 1-5. CDBDA, 6-9. CBAD, 10. BCD, 11. ABD, 12. AC, 13. ACD

三、14. (1). 不变, 99, 音调. (2). 玻璃板, 不变, 10, 10~20 投影仪.

15 (1) 大、大.

(2).

(3). $c = \frac{Q}{m\Delta t} = \frac{1.44 \times 10^4}{0.2 \times 30} = 2.4 \times 10^3 [J/(kg \cdot ^\circ C)]$



16. (1). 慢、做匀速直线运动. 一反证 变小 排开液体体积 液体压强计 盐水

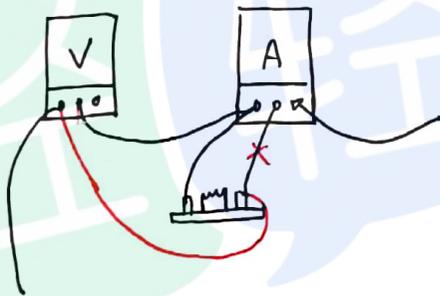
17. (1) 动力臂 阻力臂 变小. (2).



(2). $F_A = \frac{F_B \times BO}{AO} = \frac{15 \times 10 \times 2}{3} = 100 N.$

$F_{总} = G_A + F_A = 500 + 100 = 600 N.$

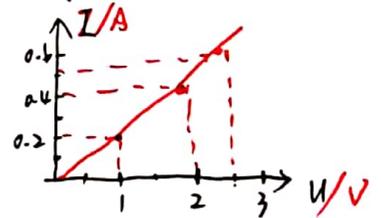
18. (1).



0.5. 导体两端电压一定时, 通过导体电流与导体的电阻成反比.

0.72

右.

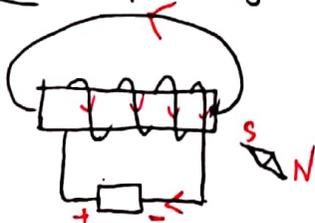


(2). 前后. 切割磁感线. 发电机 电源.

19. (1). 接通 下 停止.

(2). $R_2 = \frac{U}{I_2} \rightarrow I_2 = I - I_1 \rightarrow I_1 = \frac{P_1}{U} \rightarrow P_1 = \frac{U^2}{R_1}$

(2).



20. 细管尖端面积小, 力大小相同, 压强大, 容易扎破包装盒.

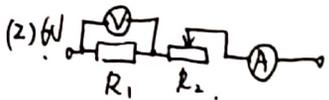
用吸管吸牛奶, 吸管内压强小于外界大气压强, 在外在大气压作用下牛奶进入嘴中.

21. 甲. $\rho_{液} = \frac{m_1 - m_2}{V}$ 小. 倒出量筒中盐水时, 量筒中有残留, 使测得盐水质量偏小.

2.2 轻轻家教教育升学

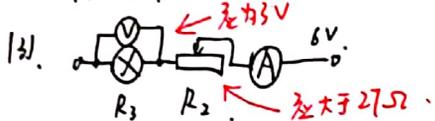


$$R_1 = \frac{U}{I} = \frac{6}{0.3} = 20 \Omega \quad \text{注:}$$



$$I' = \frac{U}{R_1 + R_2} = \frac{6}{20 + 10} = 0.2 \text{ A}$$

$$P_1 = I'^2 R_1 = 0.2^2 \times 20 = 0.8 \text{ W}$$



$$I_1 = \frac{P_2}{U - U_3} = \frac{0.75}{6 - 1.5} = \frac{1}{6} \text{ A}$$

$$R_3 = \frac{U_3}{I_1} = \frac{1.5}{\frac{1}{6}} = 9 \Omega$$

$$I_{\max} = \frac{U_{3\max}}{R_3} = \frac{3}{9} = \frac{1}{3} \text{ A}$$

$$I_3 = \sqrt{\frac{P_3}{R_3}} = \sqrt{\frac{1.44}{0.9}} = 0.4 \text{ A}$$

$$R_{2\min} = \frac{U - U_{3\max}}{I_{\max}} = \frac{6 - 3}{\frac{1}{3}} = 9 \Omega$$

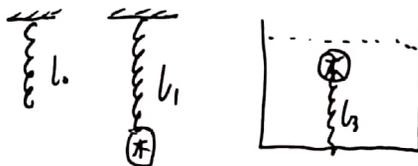
24. (1) a.

(2) $BIL \quad 1 \text{ N}/(\text{T} \cdot \text{A} \cdot \text{m})$

(3) 0.08.

(4) $B^2 L^2 V/k$.

25.



- (1) 如图①测刻度尺测出弹簧原长 l_0 .
- ② 将木块挂在弹簧上, 测出长度 l_1 .
- ③ 将木块如图浸在水槽中, 测出弹簧长度 l_3 .

$$(2) \quad G_{\text{木}} = k(l_1 - l_0)$$

$$F_{\text{浮}} = G_{\text{木}} + F_{\text{拉}} = k(l_1 - l_0) + k(l_3 - l_0) = k(l_1 + l_3 - 2l_0)$$

$$V_{\text{排}} = \frac{F_{\text{浮}}}{\rho_{\text{液}} g} = \frac{k(l_1 + l_3 - 2l_0)}{\rho_{\text{液}} g}$$

$$\rho = \frac{G_{\text{木}}}{g V_{\text{排}}} = \frac{l_1 - l_0}{l_1 + l_3 - 2l_0} \rho_{\text{液}}$$

$$\text{得: } \rho_{\text{液}} = \frac{l_1 + l_3 - 2l_0}{l_1 - l_0} \rho$$

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$$(1) \quad \eta = \frac{W_{\text{有}}}{W_{\text{总}}} = \frac{G_{\text{木}}}{G_{\text{木}} + G_{\text{动}}} = \frac{540}{540 + 60} = 90\%$$

得 $G_{\text{动}} = 60 \text{ N}$.

$$(2) \quad F_{\text{拉}} = \frac{1}{3}(G_{\text{动}} + G_{\text{木}}) = \frac{1}{3}(60 + 540) = 200 \text{ N}$$

$$p = \frac{G_{\text{木}} - F_{\text{拉}}}{S} = \frac{600 - 200}{0.04} = 1 \times 10^4 \text{ Pa}$$

$$(3) \quad F_{\text{拉}} = p' S = 12000 \times 0.04 = 480 \text{ N}$$

$$F_{\text{拉}}' = G_{\text{木}} - F_{\text{拉}} = 600 - 480 = 120 \text{ N}$$

$$F_T = 3F_{\text{拉}}' - G_{\text{动}} = 3 \times 120 - 60 = 300 \text{ N}$$

$$\eta' = \frac{W_{\text{有}}}{W_{\text{总}}} = \frac{F_T}{F_T + G_{\text{动}}} = \frac{300}{300 + 60} \approx 83.3\%$$