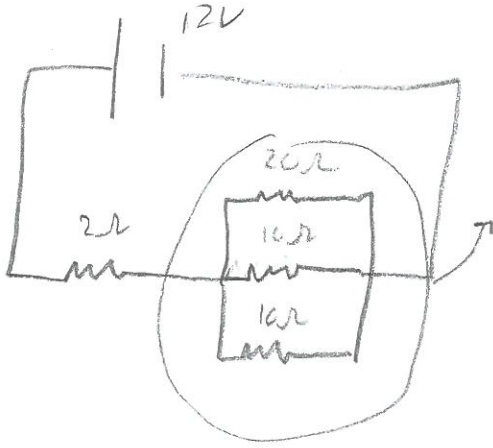


1.)



$$\left(\frac{1}{20} + \frac{1}{10} + \frac{1}{10}\right)^{-1} = 4\Omega$$

$$2\Omega + 4\Omega = 6\Omega = R_{eq}$$

2

$$I_{Total} = \frac{12V}{6\Omega} = 2A \quad I_{2\Omega} = 2A$$

4  
4  
2

$$\Delta V_{2\Omega} = 2A \cdot 2\Omega = 4V \quad \Delta V_{parallel} = 12V - 4V = 8V$$

$$I_{20\Omega} = \frac{8V}{20\Omega} = 0.4A \quad I_{10\Omega} = \frac{8V}{10\Omega} = 0.8A \quad (0.8 + 0.8 + 0.4)A = 2A$$

$$P_{2\Omega} = (2A)^2 \cdot 2\Omega = 8W \quad P_{20\Omega} = (0.4A)^2 \cdot 20\Omega = 3.2W \quad P_{10\Omega} = (0.8A)^2 \cdot 10\Omega = 6.4W$$

→ 2Ω die all off, Parallel die → only check parallel off

$$2.) \quad \mathcal{E} = -N \frac{\Delta \Phi}{\Delta t} = \frac{-10 \cdot 10T \cdot 7 \cdot (100)^2 m^2}{5s} = -1,02533V$$

- B.  $\curvearrowright$  2    C.  $N I \Delta B \sin \theta = 0$  3    D.  $\curvearrowright$  2

$$3.) a) \quad F = q v B \sin \theta = 1,3 \cdot 10^{-12} N \quad 2$$

$$b) \quad \frac{F}{m} = 8.58 \cdot 10^{12} m/s^2 \quad 2$$

c)  $\odot$  1