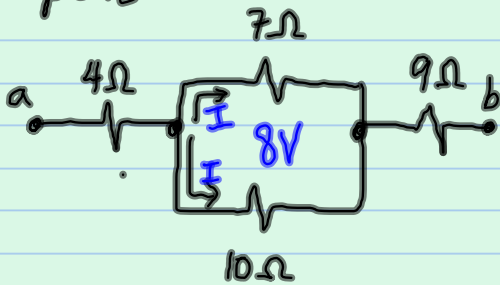


#5 ex. p578 you #6,14,7,9

due Fri by 10 a.m. after long break

34V



for all circuits (R)
find V, I across each R

Power dissipated across each R

$$P = VI \quad (\text{Watts})$$

V voltage in volts V

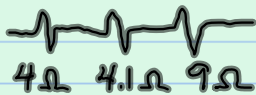
I current in Amps A

R resistance in Ohms Ω

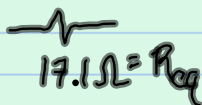
P power in Watts Watts

① find R_{eq}

$$\frac{1}{R_p} = \frac{1}{7} + \frac{1}{10} \quad R_p = 4.1 \Omega$$



$$R_s = 4 + 4.1 + 9 = 17.1 \Omega = R_{eq}$$



② $I_{total} = \frac{V}{R} = \frac{34}{17.1} = 2A$ $V = IR$

$$P = IV = I^2 R = \frac{V^2}{R}$$

③ $V = IR$
 $V_4 = 2(4) = 8V$
 $V_9 = 2(9) = 18V$

⑤ $P_4 = IV = 2(8) = 16 \text{ Watts}$

$P_9 = 2(18) = 36 \text{ Watts}$

$P_7 = 1.1(8) = 8.8 \text{ Watts}$

$P_{10} = 0.8(8) = 6.4 \text{ Watts}$

$34 - 8 - 18 = 8V$ left parallel

④ $I_7 = \frac{V}{R} = \frac{8}{7} = 1.1A$

$I_{10} = \frac{8}{10} = 0.8A$

check pts. 6) $R_{eq} = 15 \Omega, I_{total} = 2A, V_p = 6V$

7) $R_{eq} = 9.8 \Omega, I_{total} = 1.84A, V_p = 6.04V$

14) $R_{eq} = 6.75, I_{total} = 2.7A, V_p = 1.8V$