

tut 2 Q.18

$P_T = 56.25 \text{ mW}$

$I = 3.75 \text{ mA}$

$P = I^2 \cdot R$

$21.09 \times 10^{-3} = (3.75 \times 10^{-3})^2 \times R_2$

$R_2 = (1.5) \text{ k}\Omega$

$P_T = P_1 + P_2$

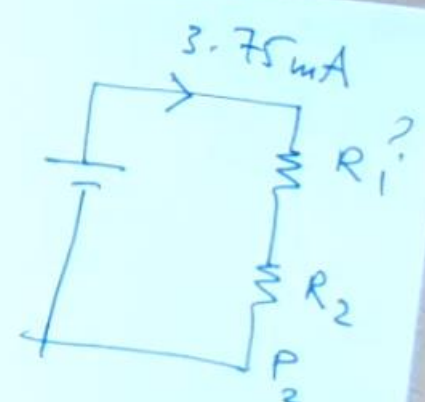
$P_1 = 56.25 \text{ mW} - 21.09 \text{ mW}$

$P_1 = (35.16) \text{ mW}$

$P_1 = I^2 \cdot R_1$

$35.16 \times 10^{-3} = (3.75 \times 10^{-3})^2 \times R_1$

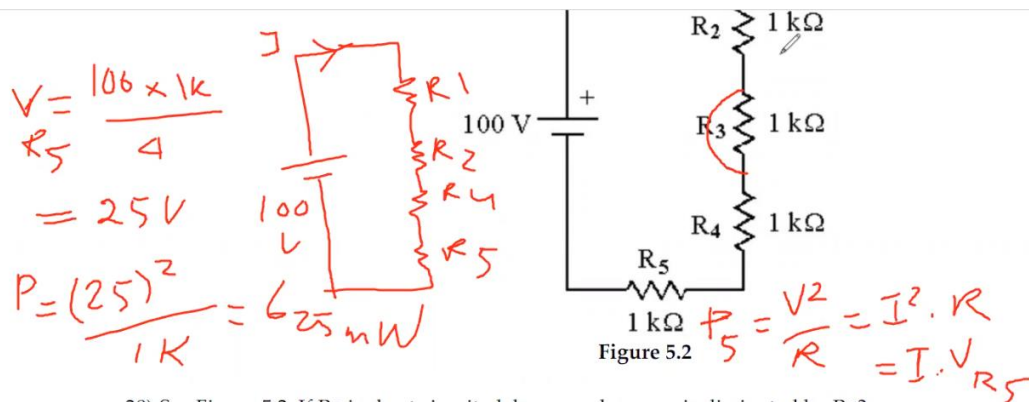
$R_1 = () \Omega$



$R_T \cdot I^2 = P_T$

$R_T = \frac{56.25 \text{ mW}}{(3.75 \times 10^{-3})^2}$

$= 21.09 \text{ mW}$



20) See Figure 5.2. If R_3 is short circuited, how much power is dissipated by R_5 ?

A) 2.5 W

B) 625 mW

C) 325 mW

D) 1.25 W

20) _____

