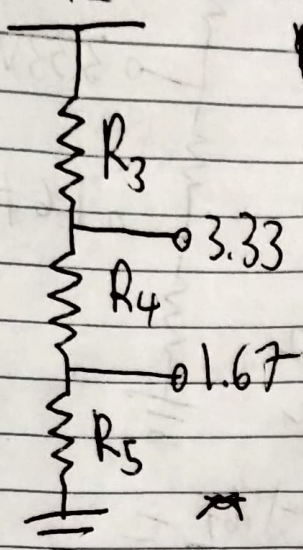


P4 12V Net $I_{o2}: 18.24 \text{ mA}$



$$\frac{3.33 - 1.67}{R_4} = 18.24 \text{ mA}$$

$$\Rightarrow R_4 = 91 \Omega$$

$$\frac{1.67}{R_5} = 18.24$$

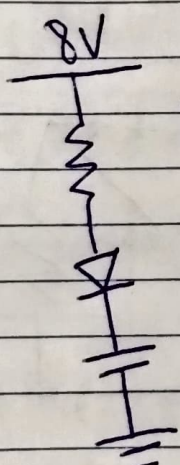
$$\Rightarrow R_5 = 91.55 \Omega \approx 91 \Omega$$

$$\frac{12 - 3.33}{R_3} = 18.24 \text{ mA}$$

$$R_3 = 475.33 \Omega \approx 470 \Omega$$

P2

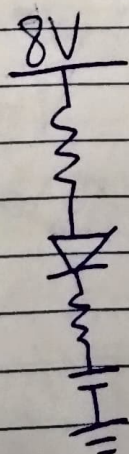
$$R_1 = R_2$$



$$\text{KVL: } -8 + R_1(I) + 0.7 + 3.33 = 0$$

$$\Rightarrow -8 + R_1(0.5) + 0.7 + 3.33 = 0$$

$$\frac{8 - 0.7 - 3.33}{0.5 \text{ mA}} = R_1 = 7.94 \text{ K}\Omega$$



$$\text{KVL: } -8 + R_1(I) + 0.7 + R_2(I) + 3.33 = 0$$

$$\frac{8 - 0.7 - 3.33}{0.001} = R_1$$

$$R_1 = 3970$$

$R_1 = R_2$ must be $\leq 3970 \Omega$
I've taken $R_1 \& R_2$ as $1 \text{ K}\Omega$