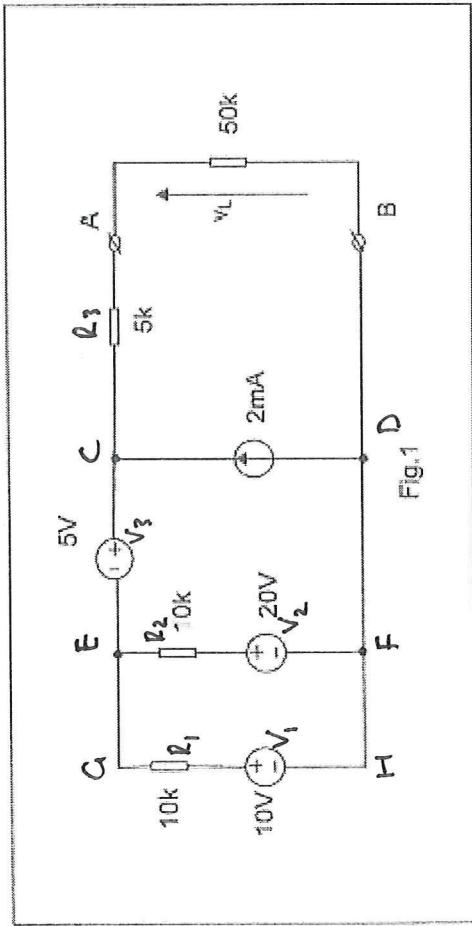


QUESTION



$$\begin{aligned}
 V_{\text{Thεv}} &= V_2 + I R_1 + V_3 \\
 (\text{LOAD removed}) &= 20 + (-0.5)(10) + 5 \\
 &= 20 - 5 + 5 \\
 &= 20 \text{ V}
 \end{aligned}$$

$$\begin{aligned}
 I &= \frac{V_1 - V_2}{R_1 + R_2} \\
 &= \frac{10 - 20}{10k + 10k} \\
 &= -\frac{10}{20k} \\
 &= -0.5 \text{ mA}
 \end{aligned}$$

$$\begin{aligned}
 R_{\text{Thεv}} &= R_2 + \frac{R_1 R_2}{R_1 + R_2} \\
 &= 5 + \frac{10 \times 10}{20} = 5 + \frac{100}{20} = 5 + 5 = \boxed{\frac{10k}{10k}}
 \end{aligned}$$

$$V_{\text{Thεv}} = 20 \text{ V}$$

$$R_{\text{Thεv}} = 10k$$