

$$\begin{aligned}
20v - [(10k\Omega + 5k\Omega + 2k\Omega + 3k\Omega + 10k\Omega) * I] + 10v - 2V_x &= 0 \\
30v - [(30k\Omega) * I] - 2V_x &= 0 \\
30v - 30k\Omega I - 2V_x &= 0
\end{aligned}$$

$$\begin{aligned}
V_x &= 10v - 5k\Omega \\
2V_x &= 2(10v - 5k\Omega) \\
2v_x &= 20v - 10k\Omega
\end{aligned}$$

$$\begin{aligned}
30v - 30k\Omega I - (20v - 10k\Omega I) &= 0 \\
30v - 30k\Omega I - 20v + 10k\Omega I &= 0 \\
10v - 30k\Omega I + 10k\Omega I &= 0 \\
10v - 20k\Omega I &= 0 \\
-20k\Omega I &= -10v \\
I &= \frac{10v}{20k\Omega} \\
I &= .5mA
\end{aligned}$$