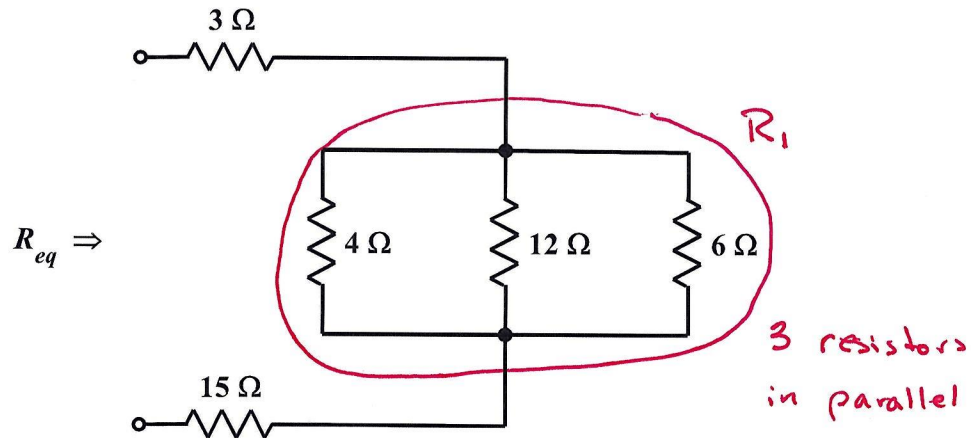


## Homework Problem #007



Determine the value of  $R_{eq}$ .

$$\begin{aligned} \frac{1}{R_1} &= \frac{1}{4\Omega} + \frac{1}{12\Omega} + \frac{1}{6\Omega} \\ &= \frac{3 + 1 + 2}{12\Omega} \\ &= \frac{6}{12\Omega} \\ &= \frac{1}{2\Omega} \end{aligned}$$

$$\therefore R_1 = 2\Omega$$

$$\begin{aligned} R_{eq} &= 3\Omega + R_1 + 15\Omega \\ &= 18\Omega + 2\Omega \\ &= 20\Omega \end{aligned}$$