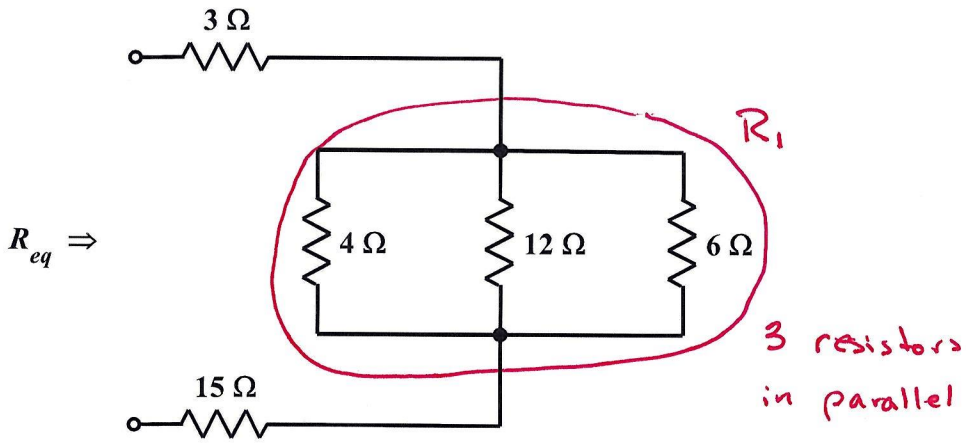
EE 2240

Homework Problem #007



Determine the value of R_{eq}.

$$\frac{1}{R_1} = \frac{1}{4\Omega} + \frac{1}{12\Omega} + \frac{1}{6\Omega}$$

$$= \frac{3+1+2}{12\Omega}$$

$$= \frac{6}{12\Omega}$$

$$= \frac{1}{2\Omega}$$

$$\therefore R_1 = 2\Omega$$

$$R_{eq} = 3\Omega + R_1 + 15\Omega$$

$$= 18\Omega + 2\Omega$$

$$= 20\Omega$$