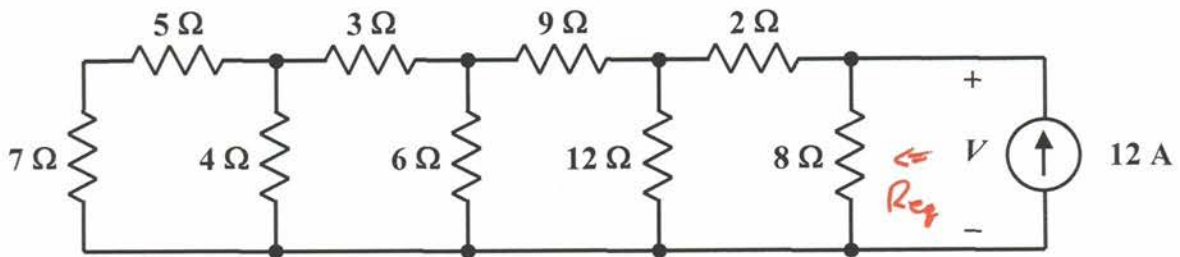


EE 2240
Problem #02



- a. Using series and parallel resistance reductions, find the equivalent resistance seen by the source.

$$7\Omega + 5\Omega = 12\Omega$$

$$12\Omega \parallel 4\Omega = 3\Omega$$

$$3\Omega + 3\Omega = 6\Omega$$

$$6\Omega \parallel 6\Omega = 3\Omega$$

$$3\Omega + 9\Omega = 12\Omega$$

$$12\Omega \parallel 12\Omega = 6\Omega$$

$$6\Omega + 2\Omega = 8\Omega$$

$$8\Omega \parallel 8\Omega = 4\Omega$$

$$R_{eq} = 4\Omega$$

- b. What is the voltage, V , across the source?

$$V = R_{eq} (12A) = 48V$$