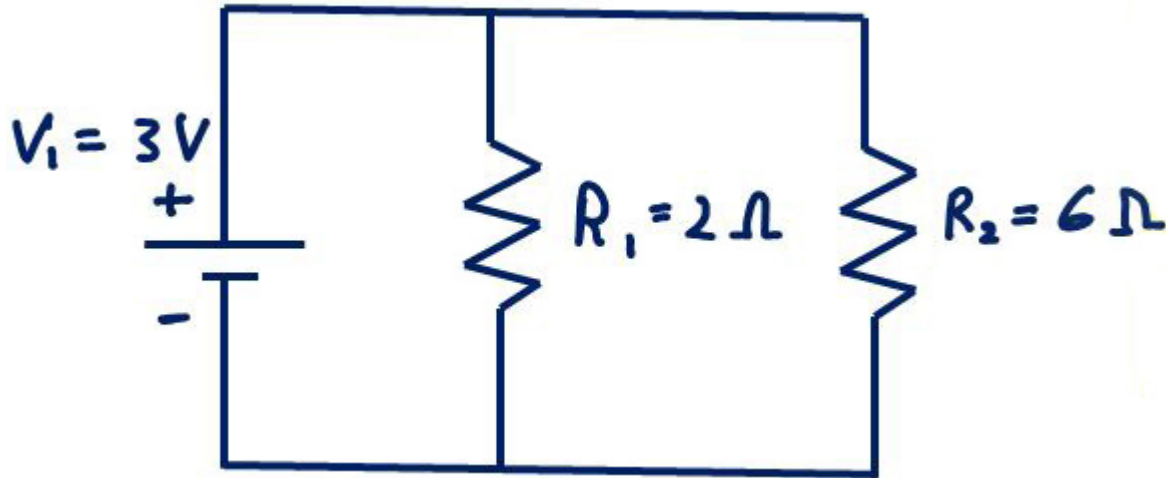


Work the problem below using Mathcad:

(The variable subscripts here are called literal subscripts and are used strictly for naming purposes)

CLASS PROBLEM: Consider the circuit shown below.

- What is the total current supplied to the resistors (the current that leaves the power source)
- How much power is consumed by the resistors?



Keystrokes

$$R_1 := 2 \cdot \Omega$$

R.1 : 2* <pick Ω from the Greek palette > <enter>

$$R_2 := 6 \cdot \Omega$$

R.2 : 6* <pick Ω from the Greek palette> <enter>

$$V_1 := 3 \cdot V$$

V.1 : 3*V <enter>

$$R_{eq} := \frac{1}{\frac{1}{R_1} + \frac{1}{R_2}}$$

R.eq : 1 / 1 / R.1 <space> + 1 / R.2 <enter>

$$R_{eq} = 1.5 \Omega$$

R.eq =

$$I := \frac{V_1}{R_{eq}}$$

I : V.1 / R.eq <enter>

$$I = 2 A$$

I =

$$P := V_1 \cdot I$$

P: V.1*I <enter>

$$P = 6 W$$

P=



Capital Omega