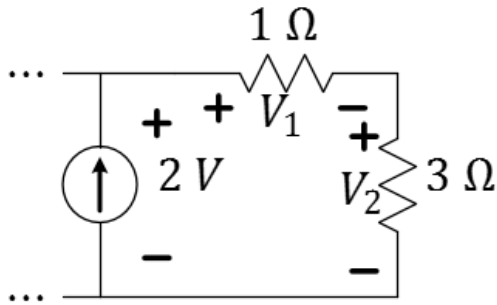
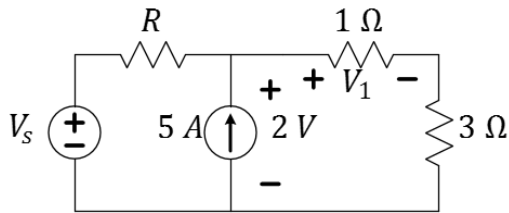


Use Voltage Divider Rule to find  $V_1$ .



**Step 1.** Identify the series resistances responsible for voltage drops.

The  $1 \Omega$  resistor is in series with the  $3 \Omega$  resistor.

**Step 2.** Apply KVL to equate the sum of the voltage drops to the voltage being divided.

This problem presents us with extra details that are not needed. Once we are provided that the current source has  $2 V$  across it, we don't need any more information to apply KVL. Around the loop we get:

$$2 - V_1 - V_2 = 0$$

$$\Rightarrow V_1 + V_2 = 2$$

Which tells us that  $2 V$  is being divided by the two resistor voltages,  $V_1$  and  $V_2$ .

**Step 3.** Apply VDR.

$$V_k = \frac{R_k}{R_{eq}} V$$

$$V_1 = \frac{1}{1+3} 2 = \frac{1}{4} 2 = 0.5 V$$

Answer:  $V_1 = 0.5 V$