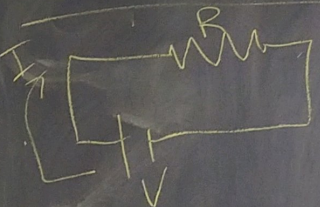


Circuits

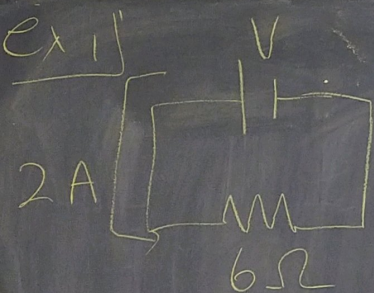


Voltage source
Current
Resistor

V Voltage measured in Volts (V)
I Current measured in Amperes (A)
R Resistance measured in Ohms (Ω)

Ohm's law $V = IR$

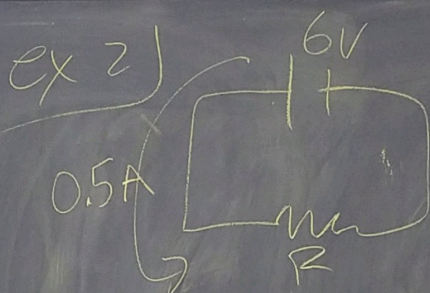
Voltage = Current \times Resistance



What is the voltage of the battery?

$$V = IR = (2 \text{ A})(6 \Omega)$$

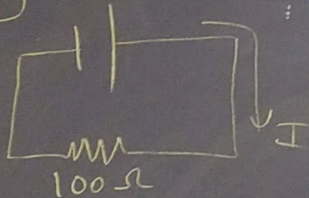
$$V = \underline{12 \text{ Volts}}$$



$$V = IR \quad R = \frac{V}{I} = \frac{6 \text{ V}}{0.5 \text{ A}}$$

$$R = 12 \Omega$$

ex3) 12V



What is the current?

$$V = 12 \text{ volts}$$

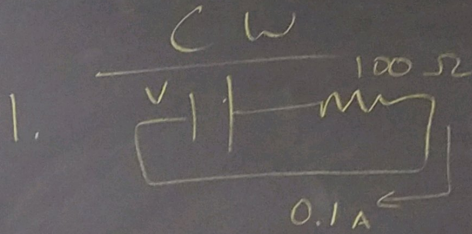
$$R = 100 \Omega$$

$$V = IR$$

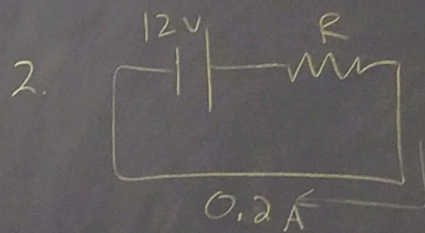
$$I = \frac{12V}{100\Omega}$$

Ohm's law

$$I = 0.12 \text{ Amps}$$



Solve for voltage of battery



What is the resistance of the resistor?