

# Análisis de los modelos circuitales

## Temas

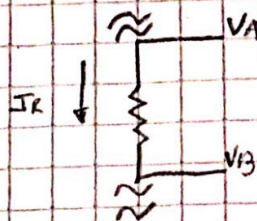
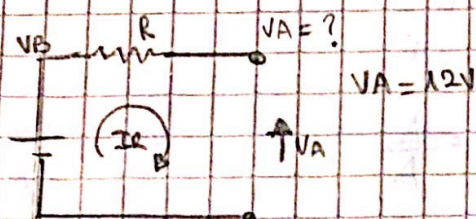
- Señales senoidales
- Números complejos
- Circuitos con inductor

- Capacitores

- Resistores

- Teorema de redes

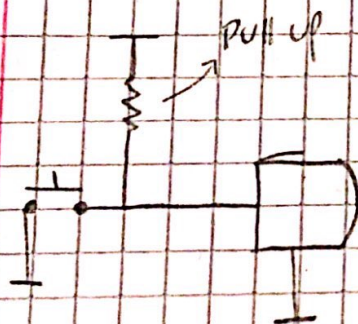
- Resonancia y potencia



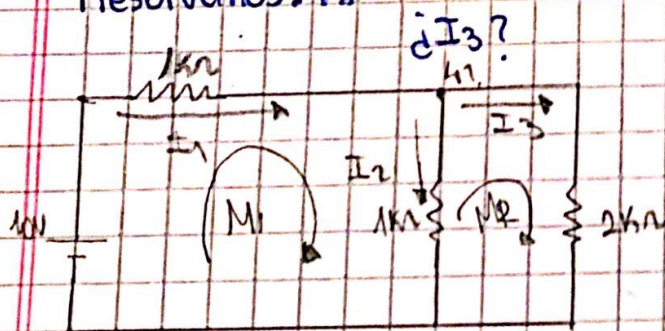
Diferencia de potencial

$$\bullet V_A - V_B = I_R \cdot R$$

Si hay dif. de potencial es que hay corriente



Resolvemos...



$$\frac{10V - 1V}{1k\Omega} = 6mA$$

$$\frac{4V}{1k\Omega} = 4mA$$

$$\frac{1V}{2k\Omega} = 2mA$$

$$\frac{10 - V_A}{1k\Omega} = I_1$$

$$\frac{V_A}{2k\Omega} = I_3$$

$$\frac{V_A}{1k\Omega} = I_2$$

$$\frac{V_A}{2k\Omega} + \frac{V_A}{1k\Omega} = \frac{10 - V_A}{1k\Omega}$$

$$\frac{V_A}{2k\Omega} + 2V_A = 10mA - \frac{V_A}{1k\Omega}$$

$$\frac{3V_A}{2k\Omega} + \frac{V_A}{1k\Omega} = 10mA$$

$$\frac{3V_A}{2k\Omega} + \frac{2V_A}{2k\Omega} = 10mA$$

$$3V_A + 2V_A = 10mA$$

$$\frac{5V_A}{2k\Omega} = 10mA$$

$$5V_A = 10mA \cdot 2k\Omega$$

$$V_A = \frac{20}{5}$$

$$V_A = 4V$$