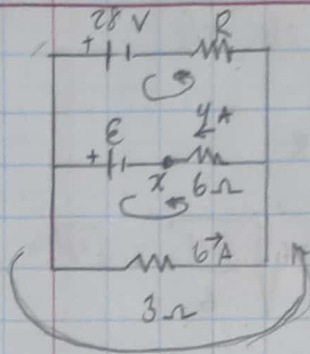
	UNIVERSIDAD DE SAN CARLOS DE GUATEMALA	FÍSICA 2 C	NOTA:
	FACULTAD DE INGENIERÍA		
	ESCUELA DE CIENCIAS	1S2023	
	DEPARTAMENTO DE FÍSICA		
	INGA. CLAUDIA CECILIA CONTRERAS FOLGAR DE ALFARO	AUX. ANGEL QUIM	

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Tarea 4



a)

$$\sum I = 0$$

$$I + 4 - 6 = 0$$

$$I = -4 + 6$$

$$I = 2.00 \text{ A}$$

$$I = 2.00 \text{ A}$$

b) $-(6)(3) - 2R + 28 = 0$

$$-18 - 2R + 28 = 0$$

$$-2R = 18 - 28$$

$$-2R = -10$$

$$R = \frac{-10}{-2} = 5 \Omega$$

$$R = 5.00 \Omega$$

c) $-(6)(3) - (4)(6) + E = 0$

$$-18 - 24 + E = 0$$

$$E = 18 + 24 = 42.0 \text{ V}$$

$$E = 42.0 \text{ V}$$

d) $28 - 3I - 5I = 0$

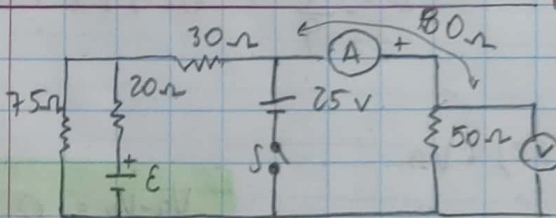
$$-8I = -28$$

$$I = \frac{-28}{-8} = 3.50 \text{ A}$$

$$I = 3.50 \text{ A}$$

P. 26.31

#2



a) $V = 15 \text{ V}$ $V = IR$

$$I = \frac{V}{R} = \frac{15}{50}$$

$$I_{50} = 0.300$$

$$I_{50} = I_{30} = 0.300 \text{ A}$$

$$V_{75} = V_{80} \Rightarrow V_{75} = (0.300)(80)$$

$$V_{75} = 24 \text{ V}$$

$$I_T = 0.300 + 0.300 = 0.600 \text{ A}$$

$$I_{75} = \frac{24}{75} = 0.320 \text{ A}$$

$$R_T = \frac{1}{75} + \frac{1}{80} = 38.7 \Omega$$

$$R_{eq} = 20 \Omega + R_T = 20 \Omega + 38.7 \Omega = 58.7 \Omega$$

$$E = 36.4 \text{ V}$$

$$E = (58.7)(0.620) = 36.4 \text{ V}$$

b)

$$I = \frac{25}{50} = 0.500 \text{ A}$$

$$I = 0.500 \text{ A}$$

