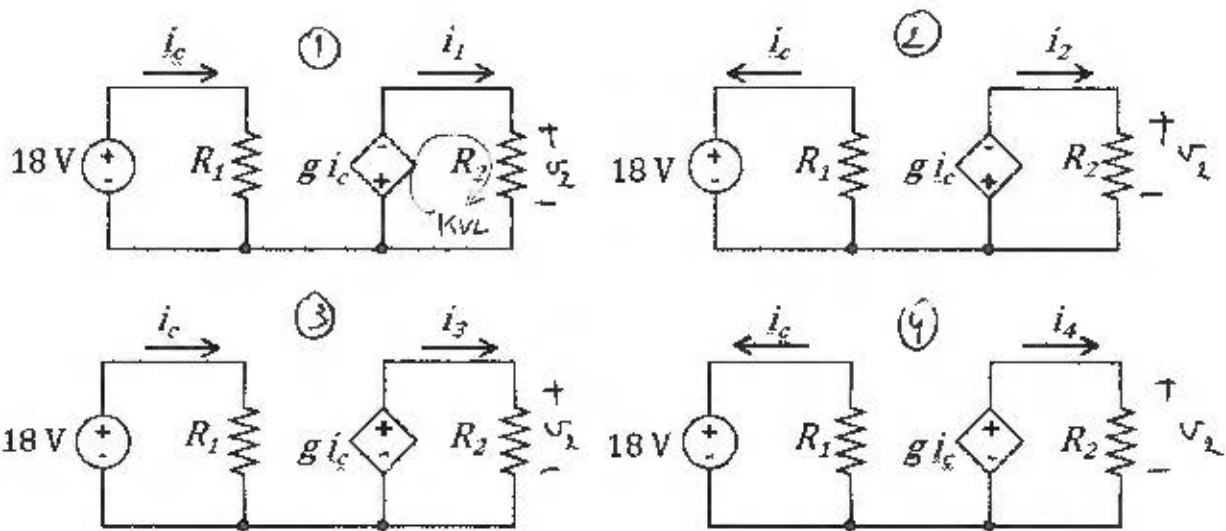


Find the currents i_1, i_2, i_3 and i_4 .



$$R_1 = 4 \Omega$$

$$R_2 = 3 \Omega$$

$$g = 2 \text{ V/A}$$

in (1): $i_c = \frac{18}{R_1} = 4.5 \text{ A}$

KVL in right part: $g i_c + v_2 = 0$

$$\Rightarrow v_2 = -g i_c = -9 \text{ V}$$

$$i_1 = \frac{v_2}{R_2} = \frac{-9}{3} \Rightarrow \boxed{i_1 = -3 \text{ A}}$$

in (2): $i_c = -4.5 \text{ A}$
 $v_2 = -g i_c = 9 \text{ V}$
 $i_2 = \frac{v_2}{R_2} = \frac{9}{3}$

$$\boxed{i_2 = 3 \text{ A}}$$

in (3): $i_c = 4.5 \text{ A}$
 $v_2 = g i_c = 9 \text{ V}$
 $i_3 = \frac{v_2}{R_2} = \frac{9}{3}$

$$\boxed{i_3 = 3 \text{ A}}$$

in (4): $i_c = -4.5 \text{ A}$
 $v_2 = g i_c = -9 \text{ V}$
 $i_4 = \frac{v_2}{R_2} = \frac{-9}{3}$

$$\boxed{i_4 = -3 \text{ A}}$$