



Since all Resistors are in series

$$R_{total} = R_1 + R_2 + R_3$$

$$R_{total} = 1 + 2 + 5.1 \text{ } \boxed{= 8.1 \text{ k}\Omega}$$

to find current I we can apply Ohm's Law

$$I = \frac{V}{R_{total}} = \frac{5}{8.1} = \frac{5}{8100}$$

$$= 0.000617 \text{ A } \boxed{= 617 \mu\text{A}}$$

Voltage drop Across each Resistor

$$V = IR$$

$$V_1 \text{ across } R_1 = V_1 = I \cdot R_1 = 0.000617 \times 1 = \boxed{0.617 \text{ V}}$$

$$V_2 = I \cdot R_2 = 0.000617 \text{ A} \times 2 \text{ k}\Omega = \boxed{1.234 \text{ V}}$$

$$V_3 = I \cdot R_3 = 0.000617 \times 5.1 = \boxed{3.14 \text{ V}}$$

Since V_1 & V_4 connected to ground

$$V_1 = V_4 = 0$$

So

$$V_2 = V_1 - \text{Voltage drop across } R_1$$

$$= 5 - 0.617 = \boxed{4.38 \text{ V}}$$

$$V_3 = V_2 - \text{Voltage drop across } R_2$$

$$= 4.38 - 1.234 = \boxed{3.14 \text{ V}}$$