

Sample Quiz 6, Solutions

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Solution:
$$\begin{cases} I_1 = 5 \\ I_2 = 4 \\ I_3 = 1 \end{cases}$$
 Unique Solution Case

(b) The voltage drop across a resistor is given by Ohm's Law: $V_R = RI$

Drop across $R_1 = 4 \text{ } \Omega$: $V_{R_1} = R_1 I_1 = 20$

Drop across $R_2 = 2 \text{ } \Omega$: $V_{R_2} = R_2 I_2 = 8$

Drop across $R_3 = 1 \text{ } \Omega$: $V_{R_3} = R_3 I_3 = 1$