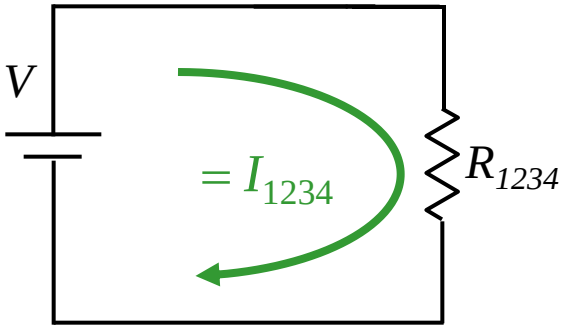
Calculation

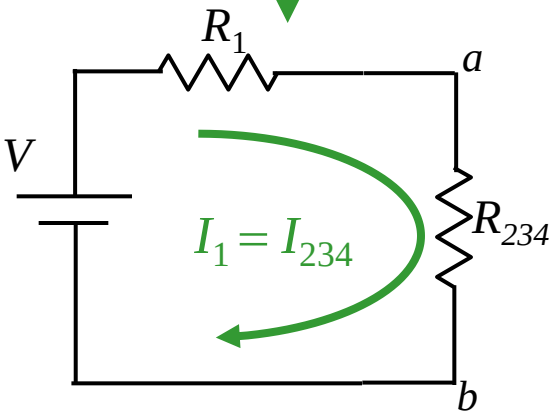


In the circuit shown: $V = 18V$,

$R_1 = 1\Omega$, $R_2 = 2\Omega$, $R_3 = 3\Omega$, and $R_4 = 4\Omega$.

$R_{24} = 6\Omega$ $R_{234} = 2\Omega$ $I_{1234} = 6\ A$

What is V_2, the voltage across R_2?



$I_{234} = I_{1234}$ Since R_1 in series with R_{234}

$V_{234} = I_{234}\ R_{234}$

$= 6 \text{ x } 2$

$= 12$ Volts

What is V_{ab}, the voltage across R_{234} ?

A) $V_{ab} = 1\ V$ B) $V_{ab} = 2\ V$ C) $V_{ab} = 9\ V$ **D) $V_{ab} = 12\ V$** E) $V_{ab} = 16\ V$