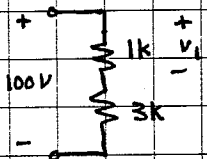


a) Use V-divider to find  $v_1$ .

sol'n: We are given 100V drop across R to left of 1kΩ and 3kΩ. ∴ we have 100V drop across 1kΩ and 3kΩ in series.

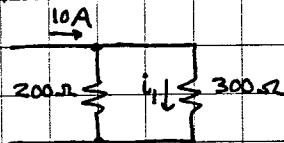


By V-divider formula,

$$v_1 = 100V \cdot \frac{1k\Omega}{1k\Omega + 3k\Omega} = 100V \cdot \frac{1}{4} = 25V$$

b) Use i-divider to find  $i_1$ .

sol'n: We are given 10A thru 200Ω in parallel with 300Ω.



By i-divider formula,

$$i_1 = 10A \cdot \frac{200\Omega}{200\Omega + 300\Omega} = 10A \cdot \frac{2}{5} = 4A$$