

3 Total resistance = $(\frac{1}{7} + \frac{1}{8})^{-1} + 2 = 5.73 \Omega$ $E = \frac{9}{8} = \frac{9}{5.73} = 1.57 \text{ A}$ Voltage across panallel combination = $1.57 \times (\frac{1}{7} + \frac{1}{8})^{-1} = 5.86 \text{ V}$ Currient across lower branch = $\frac{5.86}{8} = 0.733 \text{ A}$ Voltage across $S \Omega$ nems for = $0.733 \times S = 3.66 \text{ V}$