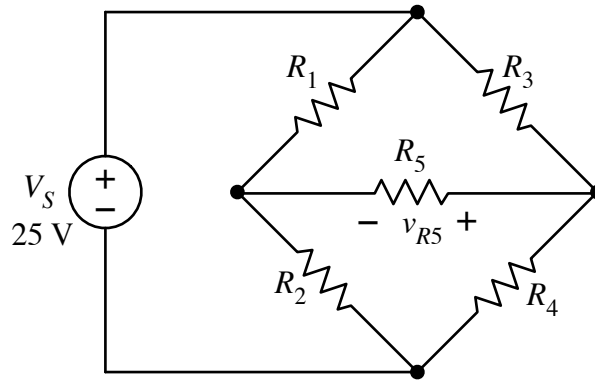


Use the node-voltage method in the following calculations.



- a. Calculate the voltage across R_5 , if all five resistances are equal to $100\ \Omega$.

$$v_{R5} = \underline{\hspace{2cm}}$$

- b. Calculate the voltage across R_5 , if $R_1 = R_4 = 50\ \Omega$ and $R_2 = R_3 = 150\ \Omega$ and $R_5 = 100\ \Omega$.

$$v_{R5} = \underline{\hspace{2cm}}$$