

Conversion Formulas

1. From Delta to Wye:

For a Delta network with resistors R_{AB} , R_{BC} , and R_{CA} , the equivalent Wye resistors R_A , R_B , and R_C are calculated as follows:

$$R_A = \frac{R_{AB} \cdot R_{CA}}{R_{AB} + R_{BC} + R_{CA}}$$

$$R_B = \frac{R_{AB} \cdot R_{BC}}{R_{AB} + R_{BC} + R_{CA}}$$

$$R_C = \frac{R_{BC} \cdot R_{CA}}{R_{AB} + R_{BC} + R_{CA}}$$

2. From Wye to Delta:

For a Wye network with resistors R_A , R_B , and R_C , the equivalent Delta resistors R_{AB} , R_{BC} , and R_{CA} are given by:

$$R_{AB} = \frac{R_A \cdot R_B + R_B \cdot R_C + R_C \cdot R_A}{R_C}$$

$$R_{BC} = \frac{R_A \cdot R_B + R_B \cdot R_C + R_C \cdot R_A}{R_A}$$

$$R_{CA} = \frac{R_A \cdot R_B + R_B \cdot R_C + R_C \cdot R_A}{R_B}$$