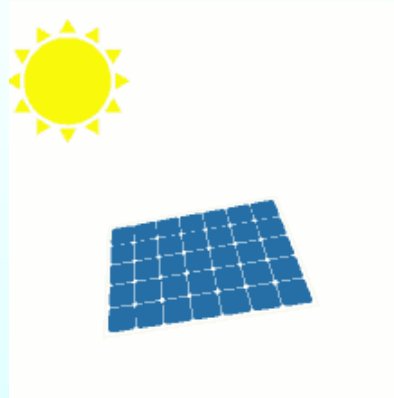


# STAR DELTA TRANSFORMATION



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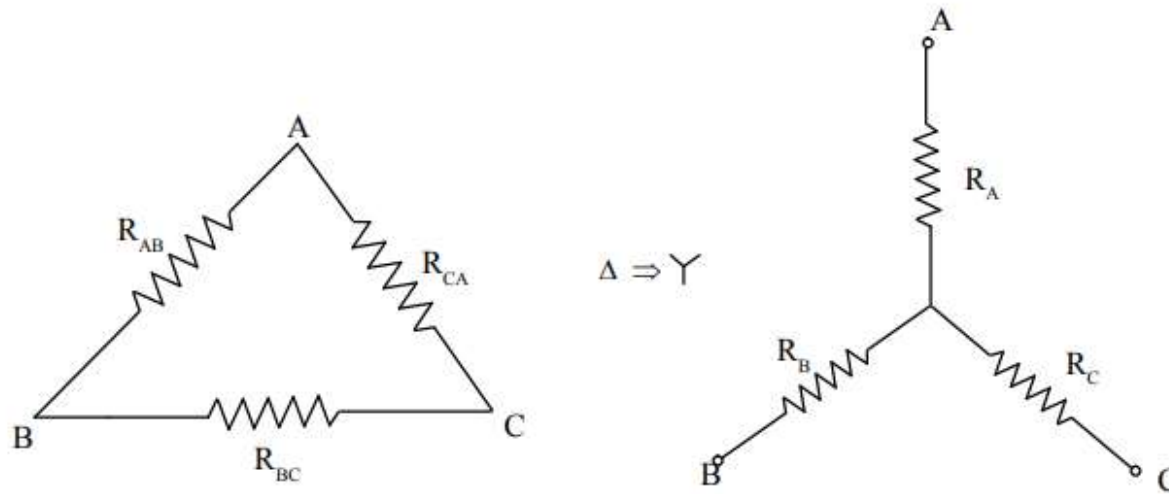
# STAR DELTA TRANSFORMATION

To solve any complex network, the star delta transformation techniques is used. There are two types of network. They are :

1. Star ( $\Upsilon$ ) network
2. Delta ( $\Delta$ ) network



## Delta to Star Transformation

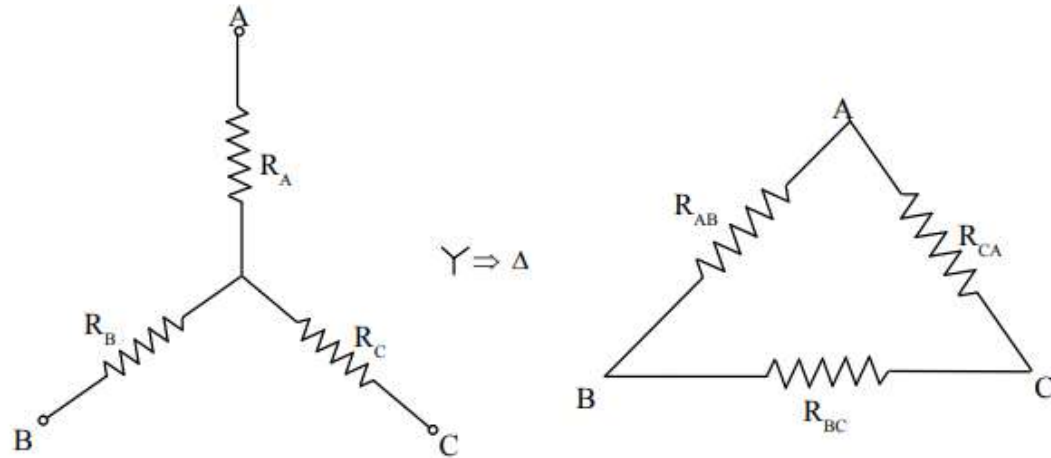


$$R_A = \frac{R_{AB} R_{CA}}{R_{AB} + R_{BC} + R_{CA}}$$

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

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

## Star to Delta Transformation



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

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

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



**Thank You**

