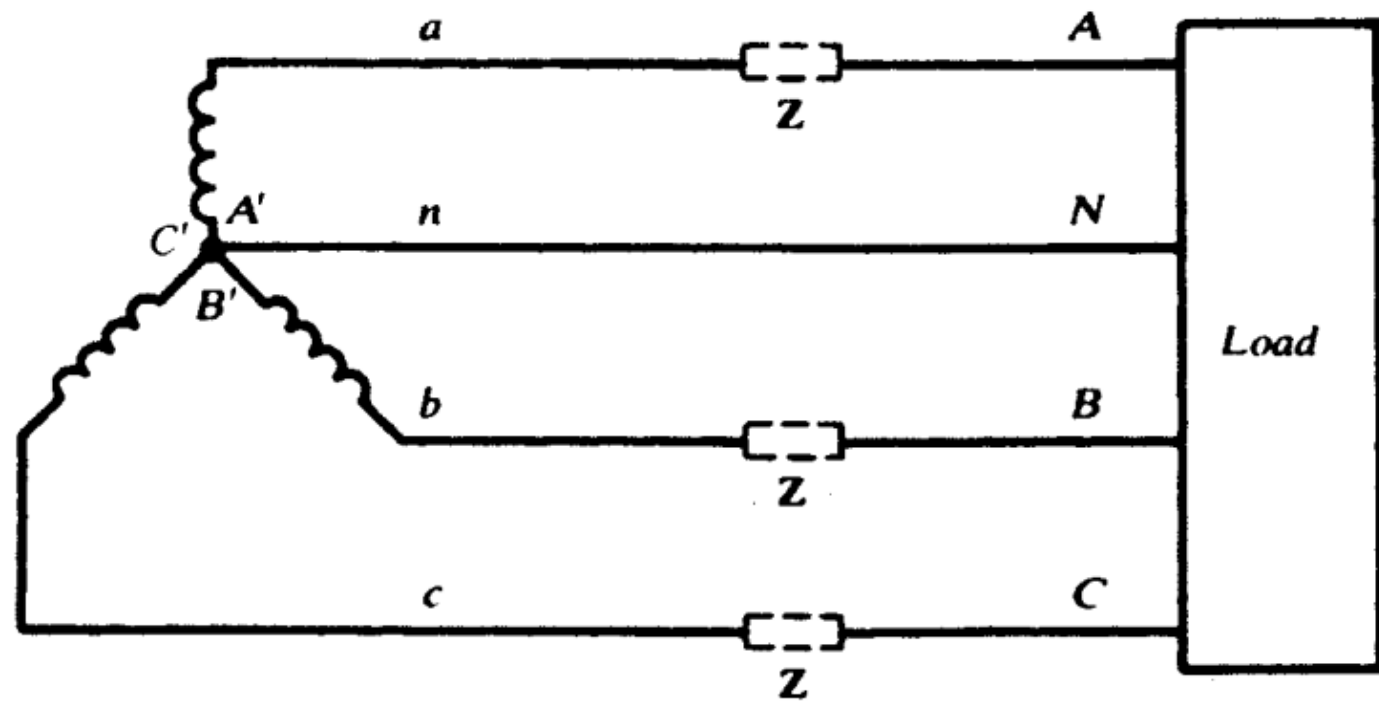
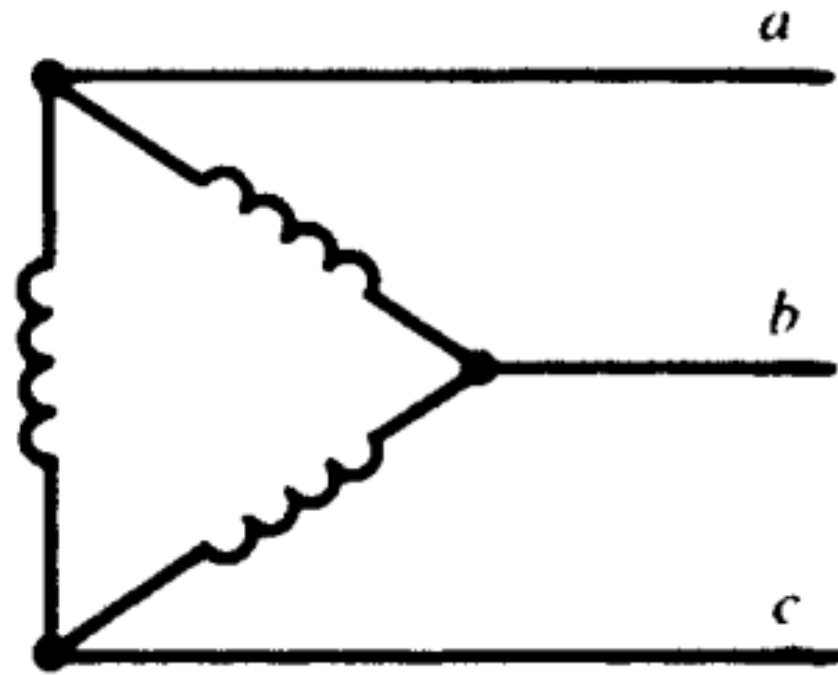
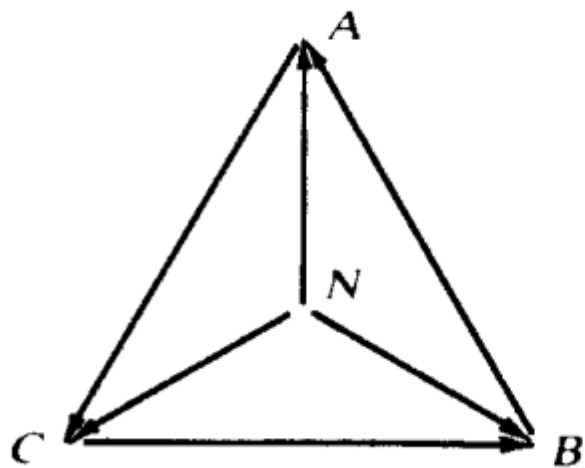


$$v_{an}(t) = (V_p\sqrt{2}) \cos \omega t \quad v_{bn}(t) = (V_p\sqrt{2}) \cos (\omega t - 120^\circ) \quad v_{cn}(t) = (V_p\sqrt{2}) \cos (\omega t - 240^\circ)$$

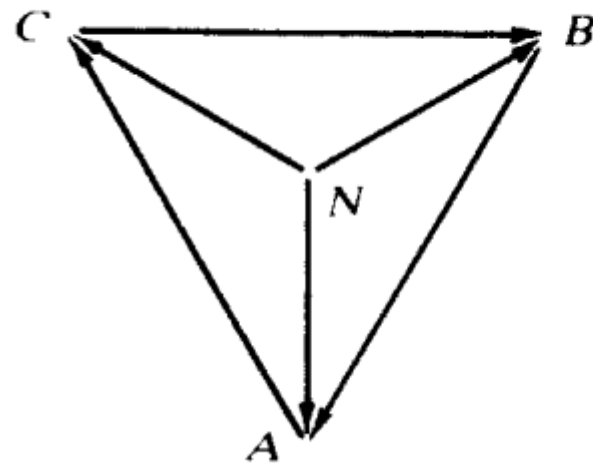
$$\mathbf{V}_{an} = V_p \underline{\underline{0}} \quad \mathbf{V}_{bn} = V_p \underline{\underline{-120^\circ}} \quad \mathbf{V}_{cn} = V_p \underline{\underline{-240^\circ}}$$







$$\begin{aligned} V_{AB} &= V_L \underline{/120^\circ} \\ V_{BC} &= V_L \underline{/0^\circ} \\ V_{CA} &= V_L \underline{/240^\circ} \\ V_{AN} &= (V_L/\sqrt{3}) \underline{/90^\circ} \\ V_{BN} &= (V_L/\sqrt{3}) \underline{/-30^\circ} \\ V_{CN} &= (V_L/\sqrt{3}) \underline{/-150^\circ} \end{aligned}$$



$$\begin{aligned} V_{AB} &= V_L \underline{/240^\circ} \\ V_{BC} &= V_L \underline{/0^\circ} \\ V_{CA} &= V_L \underline{/120^\circ} \\ V_{AN} &= (V_L/\sqrt{3}) \underline{/-90^\circ} \\ V_{BN} &= (V_L/\sqrt{3}) \underline{/30^\circ} \\ V_{CN} &= (V_L/\sqrt{3}) \underline{/150^\circ} \end{aligned}$$

