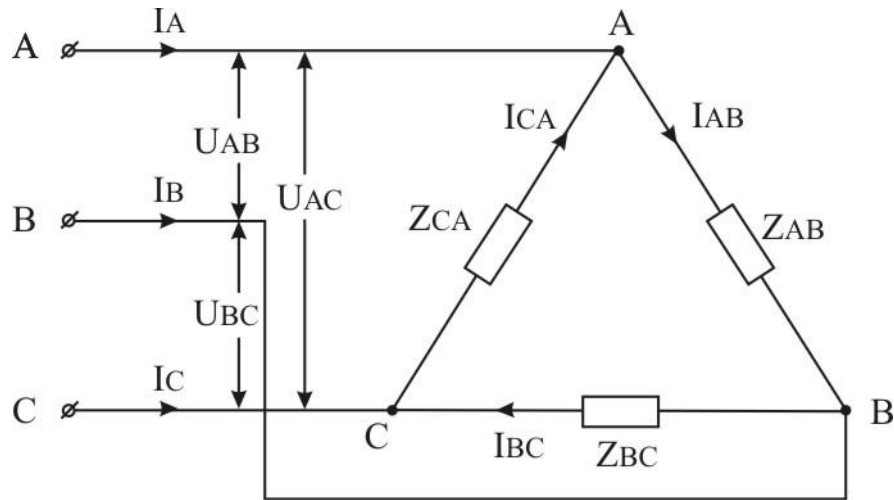


. 3.5. ( U = U ), (3.17)

$$\dot{I}_A, \dot{I}_B, \dot{I}_C \quad (\dot{I}_A, \dot{I}_B, \dot{I}_C) \quad (3.17)$$

$$\begin{aligned} \dot{I}_A &= \dot{I}_{AB} - \dot{I}_{CA} \\ \dot{I}_B &= \dot{I}_{BC} - \dot{I}_{AB} \\ \dot{I}_C &= \dot{I}_{CA} - \dot{I}_{BC} \end{aligned} \quad (3.17)$$



3.5 -

, . . .  $Z_{AB} = Z_{BC} = Z_{CA}$ , (

$$\dot{I}_A, \dot{I}_B, \dot{I}_C) \quad (3.18)$$

120°; (IA, IB, IC).  $\sqrt{3}$  , .

$$I = I / \sqrt{3} \quad (3.18)$$

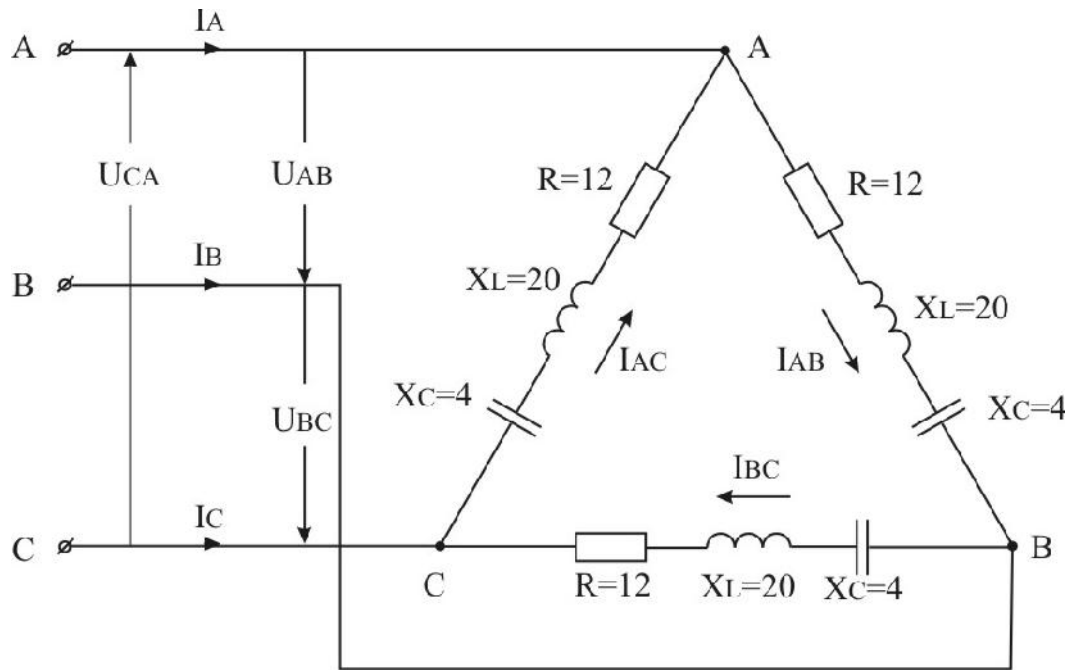
(3.6).

(P, Q, S) (3.7- (3.12).

$$3.11), \quad (3.2).$$

3.2. ( .3.6) 220 .

(P, Q, S).



3.6 -

$$Z = Z_{AB} = Z_{BC} = Z_{CA} = \sqrt{R^2 + (X_L - X_C)^2} = \sqrt{12^2 + (20 - 4)^2} = 20$$

$$I = I_{AB} = I_{BC} = I_{AC} = \frac{U_A}{Z} = \frac{220}{20} = 11 \quad .$$

(3.18),

$$I = I_A = I_B = I_C = \sqrt{3} \cdot I_{AB} = 1,73 \cdot 11 = 19 \text{ A.}$$

$$\varphi = \varphi = \varphi = \varphi = \arctg \frac{X_L - X_C}{R} = \arctg \frac{20 - 4}{12} = 53^\circ .$$

(3.12)

$$P = \sqrt{3} U \cdot I \cdot \cos \varphi = 1,73 \cdot 220 \cdot 19 \cdot \cos 53^\circ = 4345 \quad ;$$

$$Q = \sqrt{3} U \cdot I \cdot \sin \varphi = 1,73 \cdot 220 \cdot 19 \cdot \sin 53^\circ = 5766 \quad ;$$

$$S = \sqrt{3}U \cdot I = 1,73 \cdot 220 \cdot 19 = 7220$$

$$M_I = 4 \text{ / } ; U = 40 \text{ /c .}$$

$$U = U = U - 5,5 ; I = I = I - 2,75 .$$

$$120^\circ ( \text{ . 3.7) .}$$

53°

$$(3.17),$$

$$(\dot{I}_A, \dot{I}_B, \dot{I}_C) .$$

$$0 (I_{AB} = 0) .$$

$$(3.17),$$

$$(3.17)$$

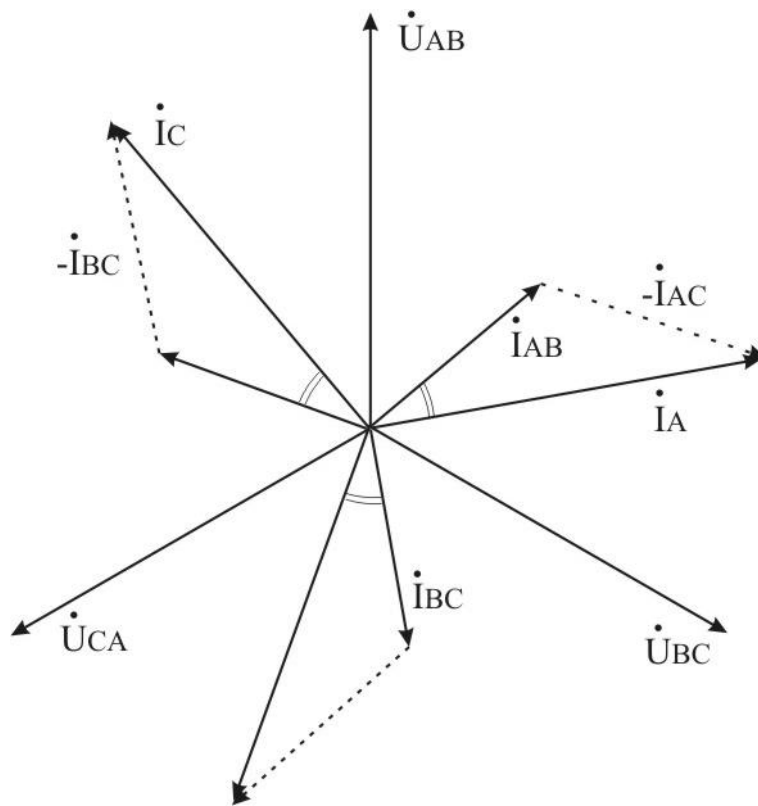
$$Z_{AB} \quad Z_{CA}$$

U .

$$I_{CA} = I_{AB} \\ I_B, I_C$$

, I\_A

$$I_{BC} \\ (3.17) .$$



3.7 -

« » 3 (3.2 3.2 ).

η=0,88, cosφ=0,86 P = 5.5  
 U = 220

$$I = \frac{5500}{\sqrt{3} \cdot U \cdot \cos \varphi \cdot \eta} = \frac{5500}{1,73 \cdot 220 \cdot 0,86 \cdot 0,88} = 19$$

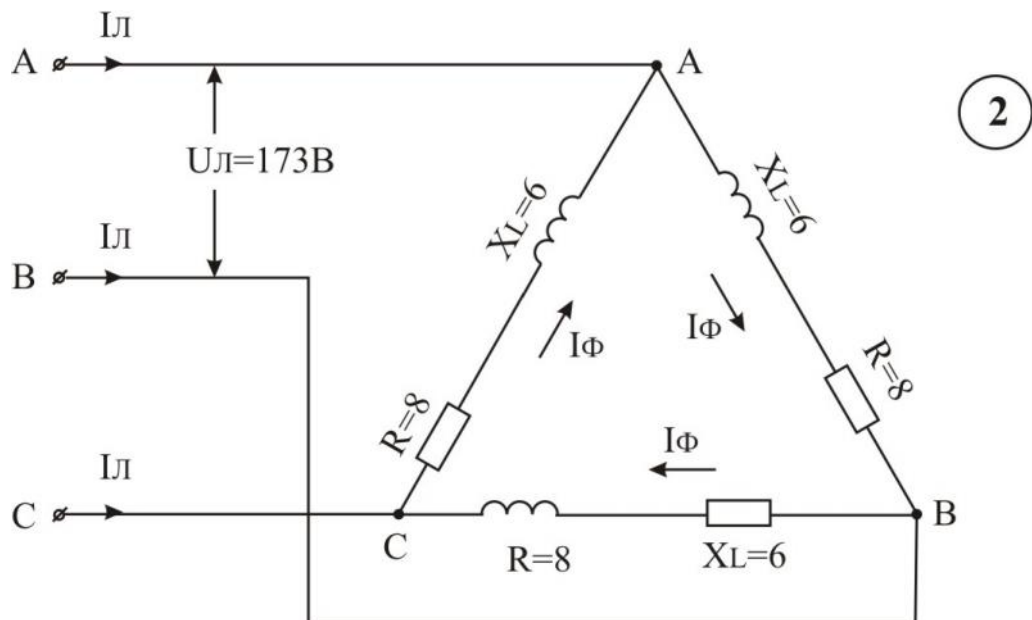
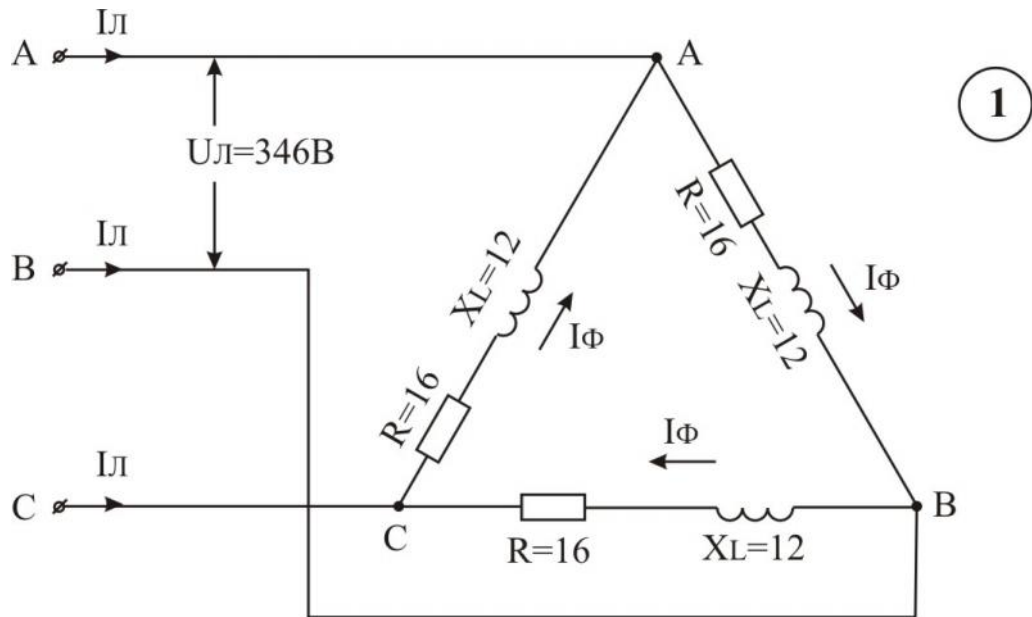
$$I = \frac{I}{\sqrt{3}} = \frac{19}{1,73} = 11$$

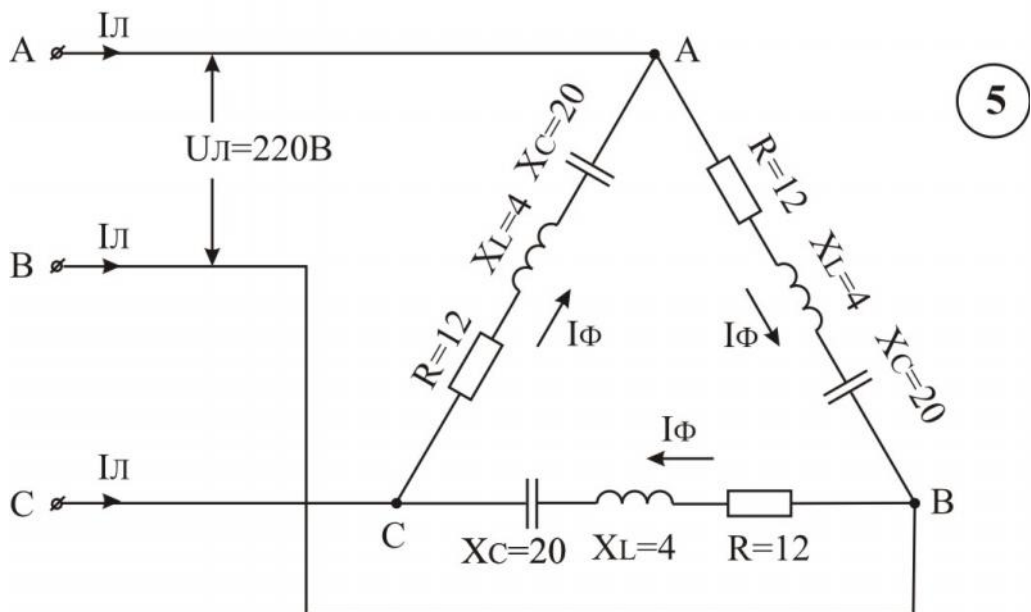
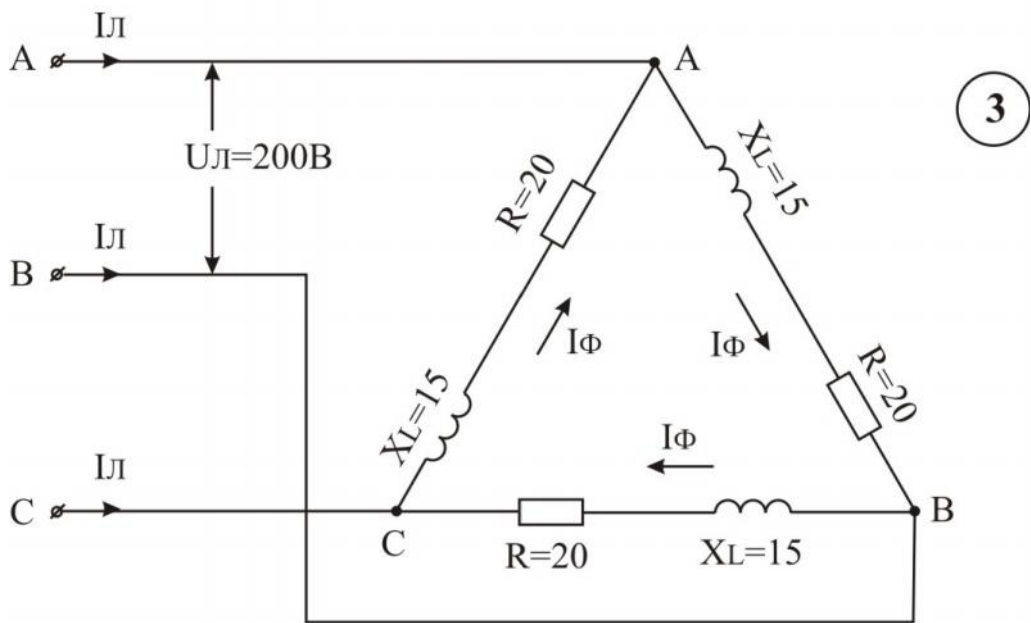
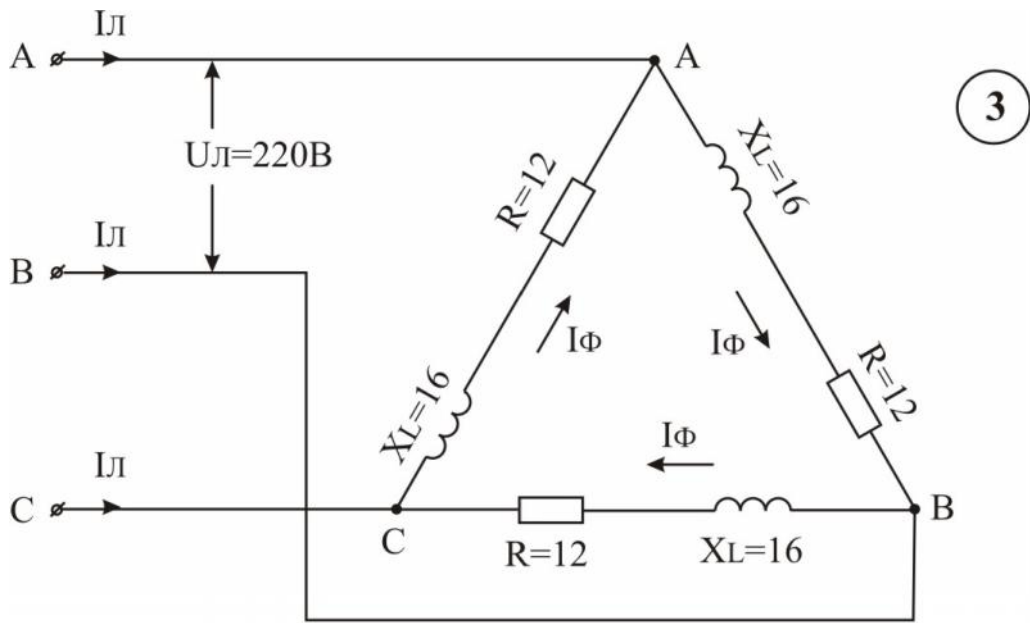
$$Z = \frac{U}{I} = \frac{220}{11} = 20$$

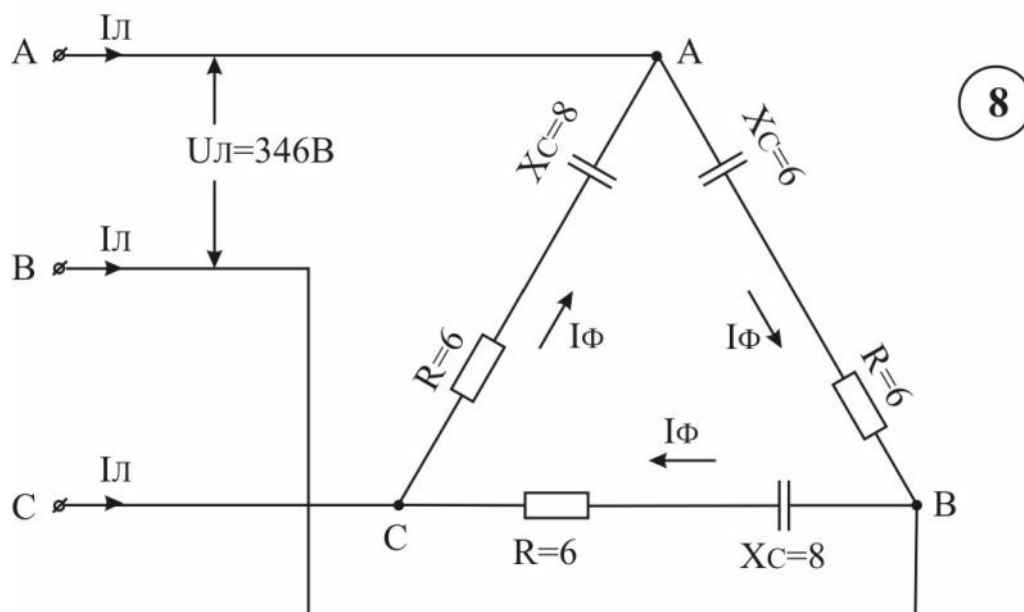
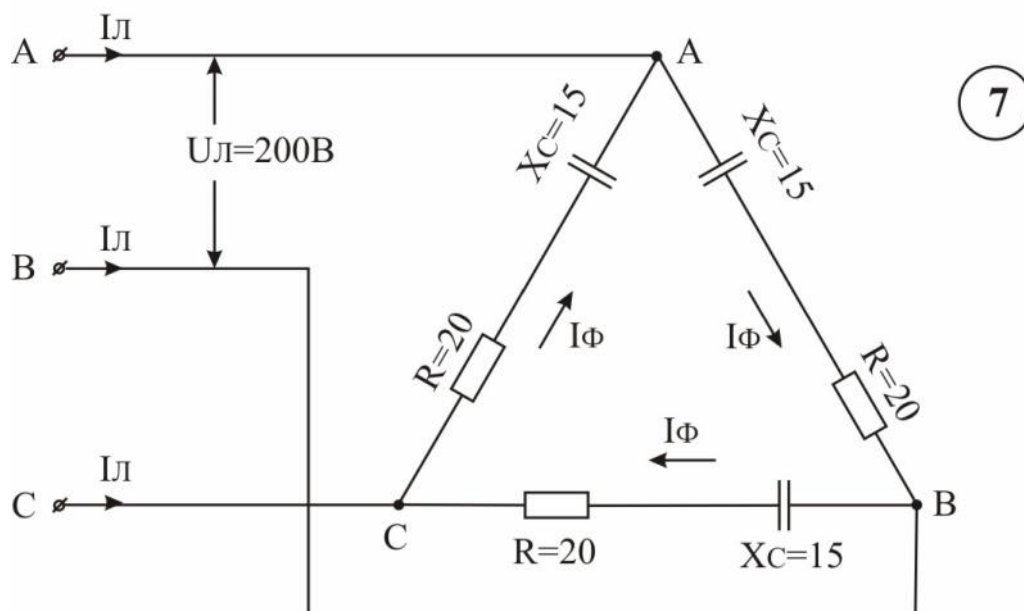
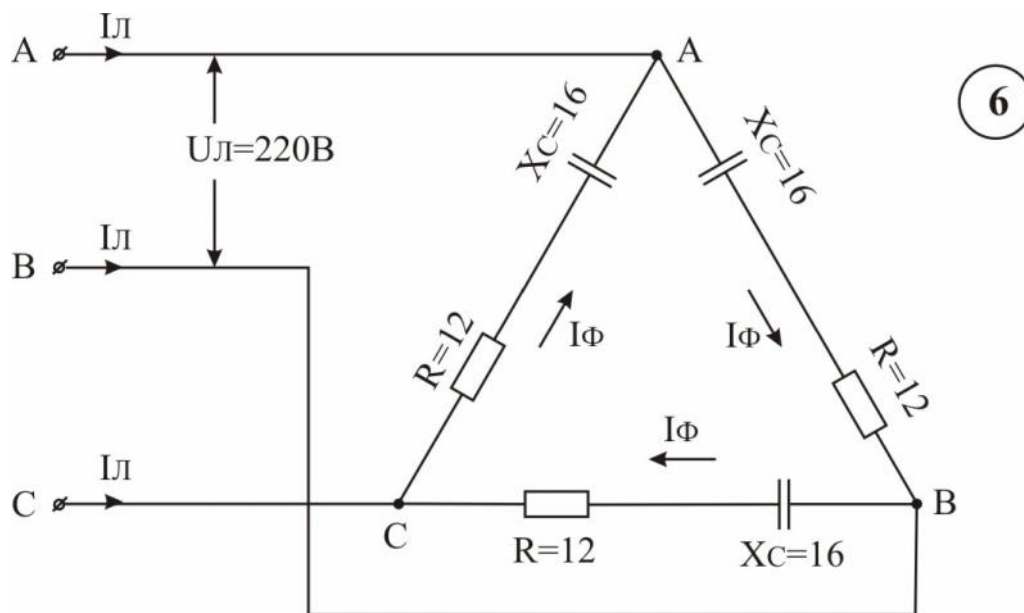
$$R = Z \cdot \cos \varphi = 20 \cdot 0,86 = 17,2$$

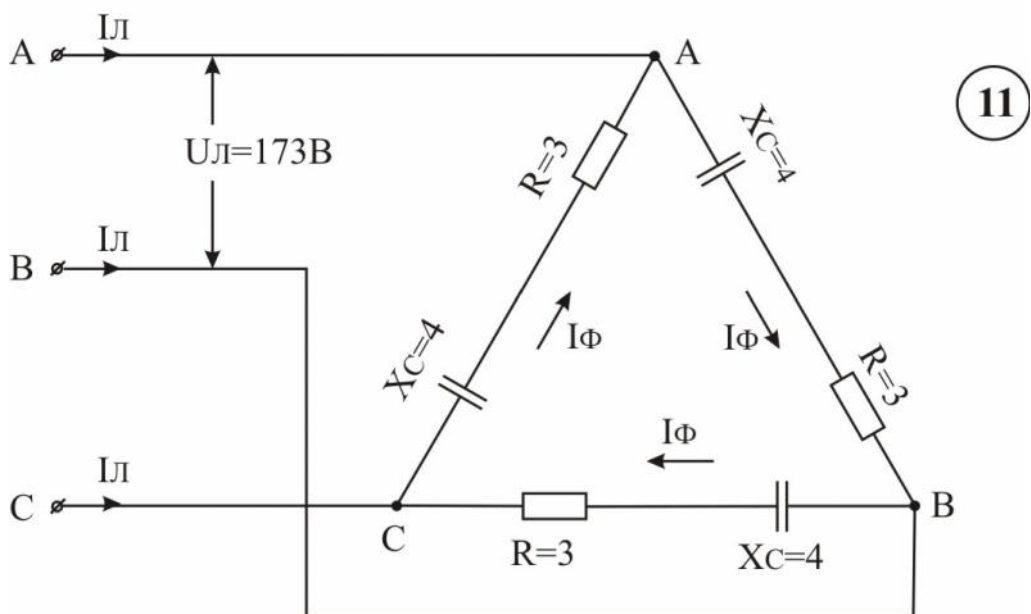
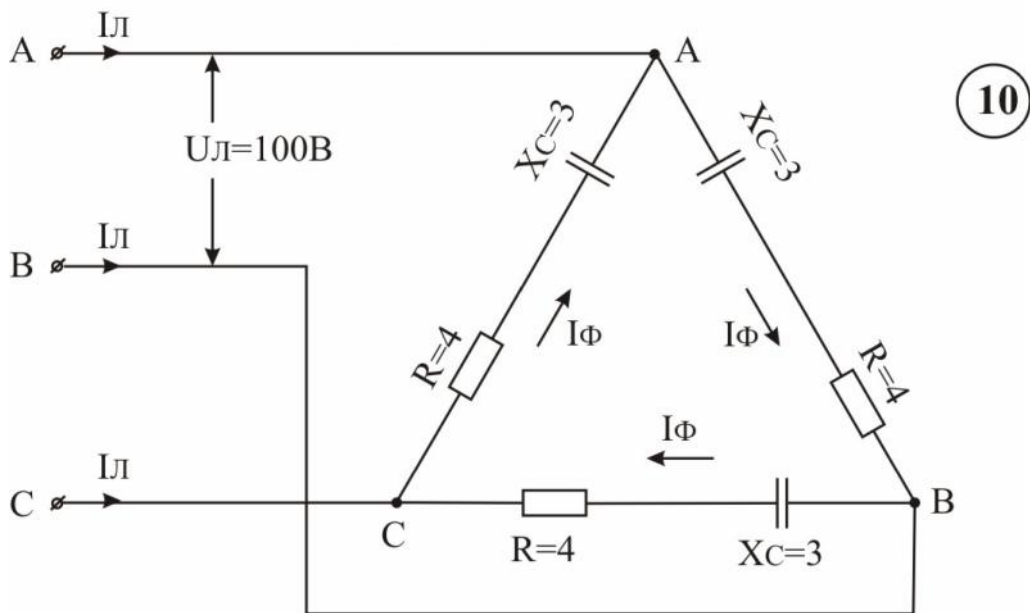
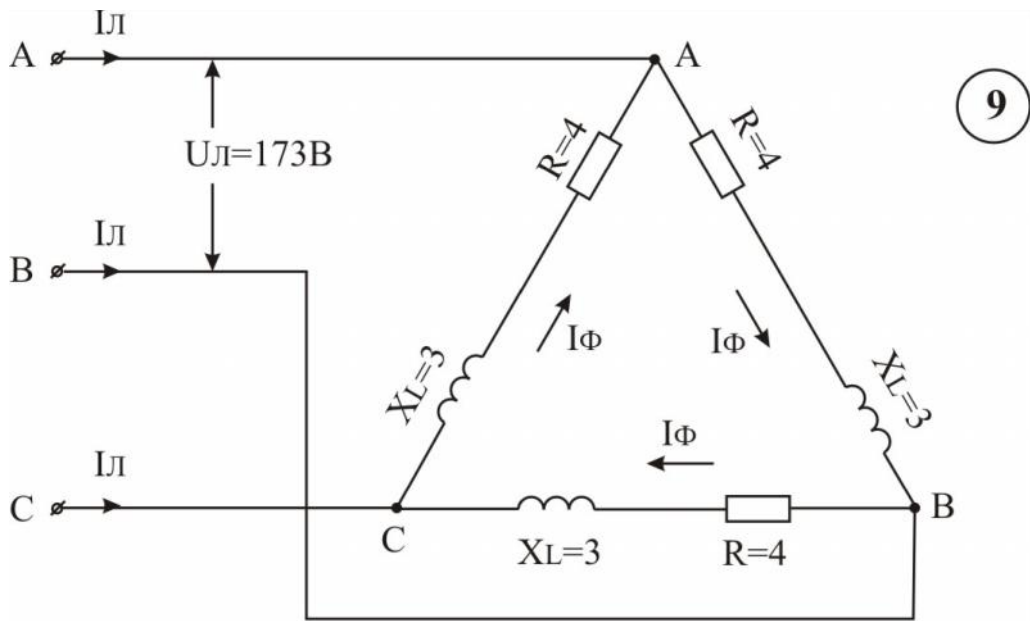
$$X_L = \sqrt{Z^2 - R^2} = \sqrt{20^2 - 17,2^2} = 10,2$$

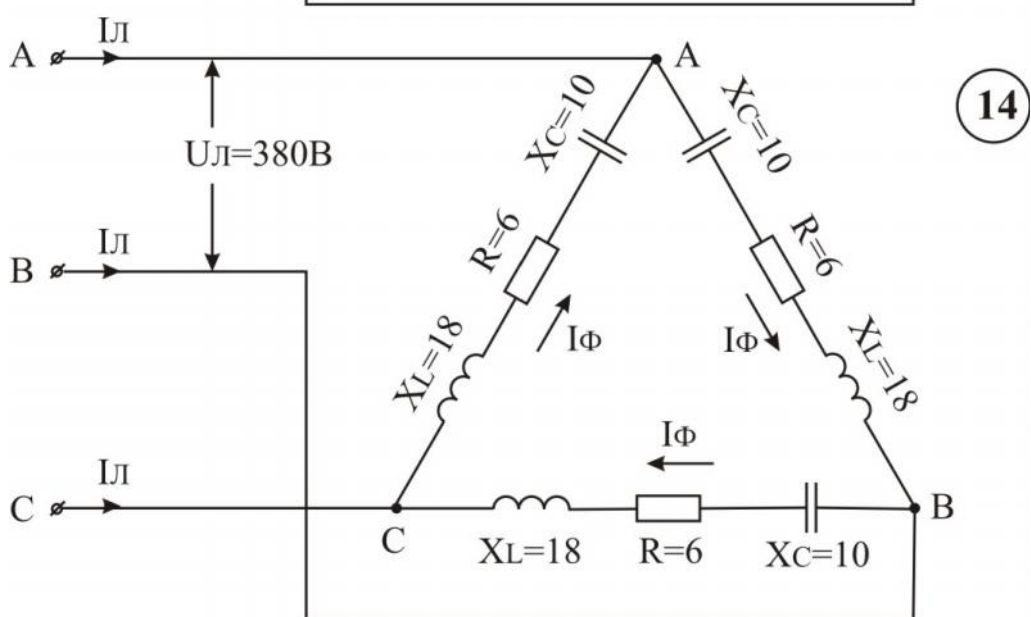
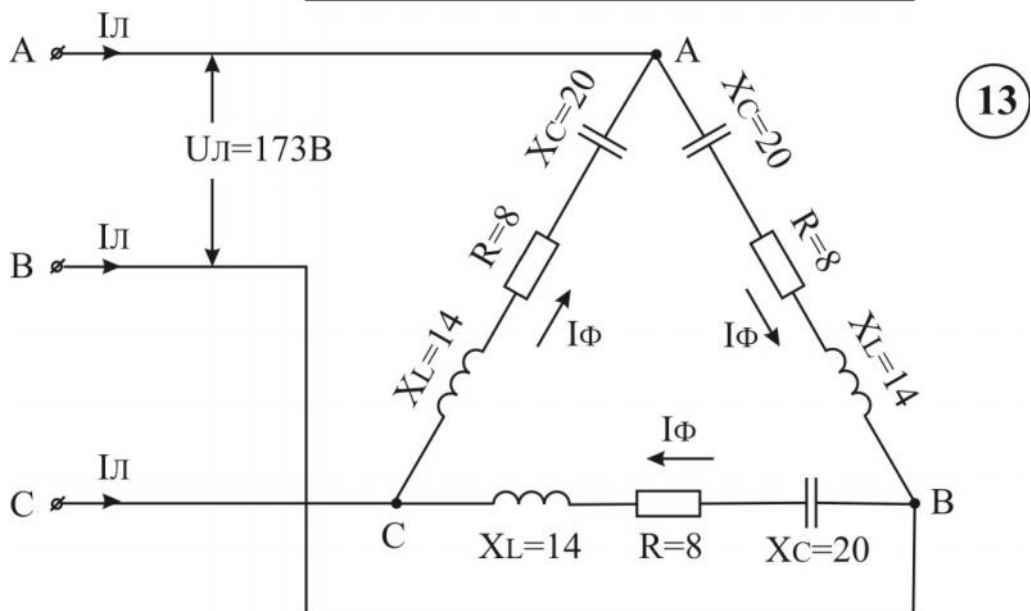
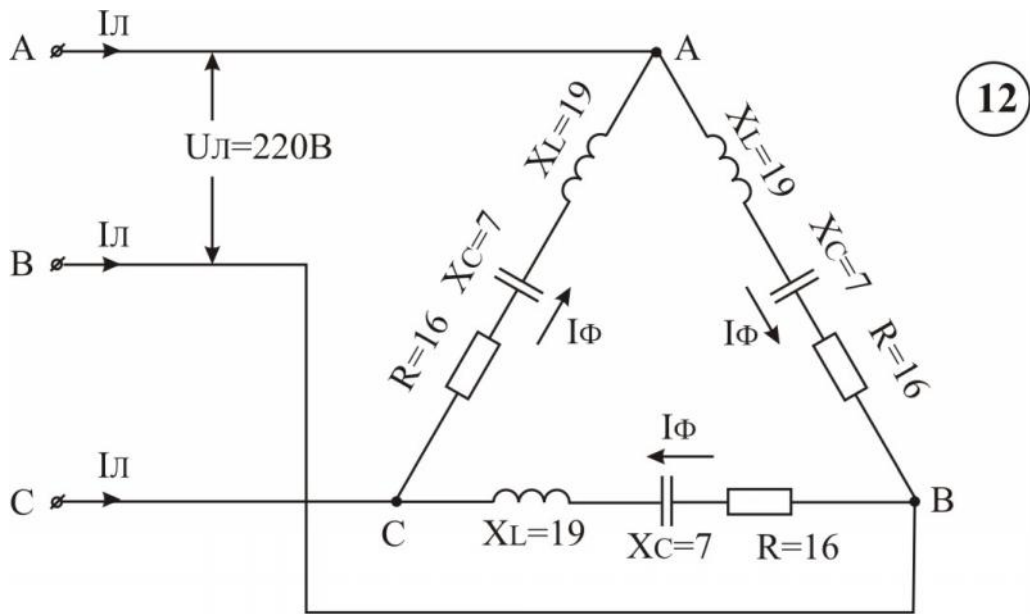
3.3 « ».













1)

2)

3)

**6.**

=4 , 85%  $\cos\varphi=0,89$ .

« » , 220 . :

1)

2)

3)

**7.**

=4,5 , =0,85  $\cos\varphi=0,82$ .

220 .

« ».

**8.**

=1,7 , =0,8  $\cos\varphi=0,78$ .

220 .

« ».

**9.**

=1,0 , 0,75  $\cos\varphi=0,75$ .

220 .

« ».

**10.**

220 .

=5

« ».

?

?