**Электротехника задачи 1**





$$\left|I\_{1}\right|=\frac{U}{\left|Z\_{1}\right|}=\frac{U}{\sqrt{r\_{1}^{2}+X\_{C1}^{2}}}=22А$$

$\left|I\_{2}\right|=\frac{U}{\left|Z\_{2}\right|}=\frac{U}{\sqrt{r\_{2}^{2}+X\_{C2}^{2}}}=$25,6

$$I\_{1}=\frac{U}{r\_{1}-jX\_{C1}}=\frac{U\left(r\_{1}+jX\_{C1}\right)}{r\_{1}^{2}+X\_{C1}^{2}}=\frac{Ur\_{1}}{r\_{1}^{2}+X\_{C1}^{2}}+j\frac{UX\_{C1}}{r\_{1}^{2}+X\_{C1}^{2}}$$

$I=U\left(\frac{r\_{1}}{r\_{1}^{2}+X\_{C1}^{2}}+\frac{r\_{2}}{r\_{2}^{2}+X\_{C2}^{2}}\right)+jU\left(\frac{X\_{C1}}{r\_{1}^{2}+X\_{C1}^{2}}+\frac{X\_{C2}}{r\_{2}^{2}+X\_{C2}^{2}}\right)=I\_{Re}+jI\_{Im}$

$$\left|I\right|=\sqrt{I\_{Re}^{2}+I\_{Im}^{2}}=$$

**Самостоятельная работа**













