Zad. 3 X_i = l. wyświetleń w i-tym dniu listopada.

$X = \sum_{i=1}^{30} X_i$, $X_i \sim Poiss(300)$, $P[X_i = k] = \frac{300^k}{k!} \cdot e^{-300}$, $k \geq 0$.

$P[X \leq 8800] = (*)$. $EX_i = \lambda$, $Var\, X_i = \lambda$, $\lambda = 300$, $n = 30$

$$(*) = P\left[\frac{X - n\lambda}{\sqrt{n\lambda}} \leq \frac{8800 - n\lambda}{\sqrt{n\lambda}}\right] \overset{CTG}{\approx} \Phi\left(\frac{8800 - n\lambda}{\sqrt{n\lambda}}\right) =$$

$$= \Phi\left(\frac{8800 - 30 \cdot 300}{\sqrt{30 \cdot 300}}\right) = \Phi\left(-\frac{200}{30\sqrt{10}}\right) =$$

$$= \Phi\left(-\frac{20}{3\sqrt{10}}\right)$$