- You will need these formula to answer Question 7 of the coursework
- The Mean (Average) $\mathrm{E}(\mathrm{S})$ and Variance $\operatorname{VaR}(\mathrm{S})$ of the Aggregate Claim on a group of policies can be calculated as:

$$
\begin{gathered}
E(S)=\lambda \cdot \mu_{C} \\
\operatorname{Var}(S)=\lambda \cdot \sigma_{C}^{2}+\lambda \cdot \mu_{C}{ }^{2}
\end{gathered}
$$

- Where $\mu_{\mathrm{c}}$ is the average claim severity, $\sigma_{\mathrm{c}}{ }^{2}$ is the variance of the claim severity and $\lambda$ is the average frequency of claims

