

ii)

$$F_W(t) = P(\max\{X, Y\} \leq t) = P(X \leq t \cap Y \leq t) =$$

independientes

$$= P(X \leq t) \cdot P(Y \leq t) = F_X(t) \cdot F_Y(t) = F_X(t)$$

Es la misma F

$$f_X(t) = \begin{cases} 1 & \text{si } t \in [0, 1] \\ 0 & \text{si } t \notin [0, 1] \end{cases} \quad F_X(t) = \begin{cases} 0 & \text{si } t \leq 0 \\ t & \text{si } 0 < t < 1 \\ 1 & \text{si } 1 \leq t \end{cases}$$

$$F_W(t) = \begin{cases} 0 & \text{si } t \leq 0 \\ t^2 & \text{si } 0 < t < 1 \\ 1 & \text{si } 1 \leq t \end{cases}$$

$$f_W(t) = F'_W(t) = \begin{cases} 2t & \text{si } t \in (0, 1) \\ 0 & \text{si } t \notin (0, 1) \end{cases}$$

$$E(T) = \int_{-\infty}^{\infty} t \cdot f_{W+Z}(t) dt$$

$$Z \rightarrow X^2$$

no le calculo la parte de i...

$$\begin{aligned} 1 &\leq t - X \\ 1 + X &\leq t \\ t &\end{aligned}$$