

$$P(x \geq 1) \quad P(x \leq 0,5) \quad P(1 \leq x \leq 1,5)$$

$$F_X(t) = P(X \leq t) = \int_{-\infty}^t f(x) dx$$

$$\text{Si } x < 0 \Rightarrow F_X(t) = 0 \quad \left(\int_0^2 f(x) dx = 1 \right)$$

$$\text{Si } x > 2 \Rightarrow F_X(t) = \int_{-\infty}^{t \text{ (}> 2\text{)}} f(x) dx = 1$$

$$\text{Si } 0 \leq x \leq 2 \Rightarrow F_X(t) = \int_0^t \frac{x}{2} dx = \frac{1}{2} \left[\frac{x^2}{2} \right]_0^t \\ = \frac{t^2}{4}$$

$$F_X(t) = \begin{cases} 0 \\ \frac{t^2}{4} \\ 1 \end{cases}$$

$$\text{Si } t \in]-\infty, 0[$$

$$\text{Si } t \in [0, 2]$$

$$\text{Si } t \in]2, +\infty[$$