Exerice 3

$\Omega = \{0,1\}^{\mathbb{N}}$

$\omega = (\omega_1, \omega_2, \dots) \in \{0,1\}^{\mathbb{N}}$

On se munit de la variable aléatoire

$X : \Omega \to \mathbb{N} \cup \infty$

$$\omega \mapsto \begin{cases} k \text{ si } \{ \underbrace{0, ..., 0,}_{\text{k zeros}} \ 1\} \\ \infty \text{ si } \{\underbrace{0, ..., 0}_{\infty}\} \end{cases}$$

$P(X = k) = (1-p)^{k-1}p$