4.3.11 (a) For $A = \mathbb{Z}$, the floor function, $[x]$

(b) For $A = (0, 1)$, the function $f(x) = \begin{cases} \infty & \text{if } x \in (0, 1) \\ 0 & \text{otherwise} \end{cases}$

(c) For $A = [0, 1]$, the function $f(x) = \begin{cases} \infty & \text{if } x \in [0, 1] \\ 0 & \text{otherwise} \end{cases}$

(d) For $A = \{\frac{1}{n} : n \in \mathbb{N}\}$, the function $f(x) = \begin{cases} [\frac{1}{x}] & \text{if } x \in (0, 1) \\ 0 & \text{if } x \notin (0, 1) \end{cases}$.