Let $X$ a set, $E = P(X)$, we define $R$ as:

$$\forall (A, B) \in E^2, ARB \iff A \subset B$$

Proove that $R$ is an order relation.

$Let\, A \in E$
$\Rightarrow A \subset A$
$\Rightarrow R$ is reflexive

$Let (A, B, C) \in E^3, A \subset B$ and $B \subset C$
$\Rightarrow A \subset C$
$\Rightarrow R$ is transitive

$Let (A, B) \in E^2, A \subset B$ and $B \subset A$
$\Rightarrow A = B$
$\Rightarrow R$ is antisymmetric

Let $(x, y) \in E^2 \mid x \neq y$
$\Rightarrow \{x\} \in P(E)$ and $\{y\} \in P(E)$ and $\{x\} \not\subset \{y\}$ and $\{y\} \not\subset \{x\}$
$\Rightarrow R$ doesn't bring total order