Some sample problems from 12.1

Problem 3: there are four different functions from $\{a,b\}$ to $\{0,1\}.$ List them.

Problem 5: give an example of a relation from $\{a,b,c,d,e\}$ to $\{d,e\}$ that is not a function.

Problem 9. Consider the set $\{(x^2, x) : x \in \mathbb{R}\}$. Is this a function from $\mathbb{R} \to \mathbb{R}$?