Definition : A function $f : D \to C$ is a **bijection** means that it is both one-to-one and onto. The **inverse** of a bijection $f : D \to C$ is the function $g : C \to D$ such that $g(b) = a$ iff $f(a) = b$.

For nonempty sets A, B we say

$|A| \leq |B|$ means there is a one-to-one function with domain A, codomain B

$|A| \geq |B|$ means there is an onto function with domain A, codomain B

$|A| = |B|$ means there is a bijection with domain A, codomain B