Bijective

A function f from set A to set B is called a *bijection* and f is said to be *bijective* if every element in A maps to a different element in B, and every element in B is mapped onto by some element in A.

In symbols, if $f(x) = f(y)$, then $x = y$, and for every $y \in B$, there is some $x \in A$ with $f(x) = y$.

Therefore a bijective function is one which is both injective and surjective.

A bijection creates a correspondence between the sets A and B: every element in A corresponds to exactly one element of B, and vice versa.

A bijection has an inverse.