For nonempty sets A, B we say

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

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

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

For all sets A, we say $|A|=|\emptyset|,\, |\emptyset|=|A|$ if and only if $A=\emptyset.$