



Discrete Mathematics

Functions

Cardinality condition in Bijection - Part 1

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## Functions

### Cardinality condition in Bijection - Part I



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Let me ask you a question for which you will wonder why do we even ask such simple and silly questions. This question is very important although sounds very simple and straightforward and you will get the answer in a second's time. We will refer to this question again and again in the forthcoming topics and chapters. The question goes like this.

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Question:

What is the cardinality of  $A$  and  $B$  when the function  $f: A \rightarrow B$  is a bijection?

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What is the cardinality of  $A$  and  $B$ ? What can you say about the cardinalities of  $A$  and  $B$  when the function  $f$  from  $A$  to  $B$  is given to be bijection?