Discrete Mathematics

Functions

Number of One-One functions - Part 1

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Now here goes my question. How many possible one-one functions can you think of from ABCD to 123456? Are there infinitely many? It doesn't look like it right? I mean it looks like you can compute the total number of one-one functions by simply exhausting all of them. Correct.

So as an example if you say let's have some x, y and 1, 2 like this the only possible one-one functions are this and x, y going to 2, 1. These are the only two possibilites.

So they are not infinitely many. They are finitely many but what are those for this example of ABCD going to 123456? How many possible one-one functions can you think of? Think about it.