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Class - XI^{SC} (MATHS)

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Function \Rightarrow A relation 'f' from

a set A to a set B is said to be a function if every element of set A has one and only one image in set B.

If 'f' is a function from A to B and $(a, b) \in f$, then $f(a) = b$, where b is called the image of 'a' under f and a is called the preimage of 'b' under f.

The function f from A to B is denoted by $f: A \rightarrow B$.

Note:- Every relation is a function but every function need not be a relation.

1) Let N be the set of natural numbers and the relation R is defined as on N such that $R = \{(x, y) : y = 2x, x, y \in N\}$

What is the domain, Co-domain and Range of R ? Is this relation a function?

Ans Clearly, it is given that

$y = 2x$, so its domain is ' N ' and Co-domain be ' N '. Its

Range is even natural no.

It is also clear that for every natural no. there is a unique image. So it is a relation.

Solve Ex 2.2