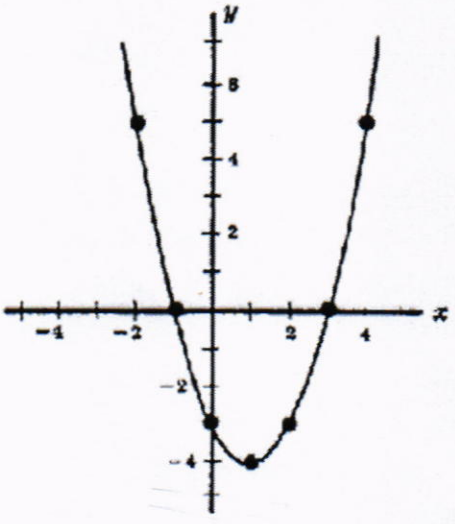
Example 2: let f: R→R and f (x) = x2 − 2x − 3, , find f(x)

x	f(x)
−2	5
−1	0
0	−3
1	−4
2	−3
3	0
4	5



Geometrical Characterization of One-to-One and Onto Functions

For the functions of the form f : R → R· the graphs of such functions may be plotted in,the Cartesian plane and functions may be identified with their gr aphs, so the concepts of,being

one-toone and onto have some geometrical meaning :

(1) f :R → R is said to be

one-to-one if there are no 2 distinct pairs (a1,b) and (a2,b) in the graph one-to-

one or if each horizontal line intersects the graph of f in at most one point·