Math Worksheet: Graphs of Functions (4)

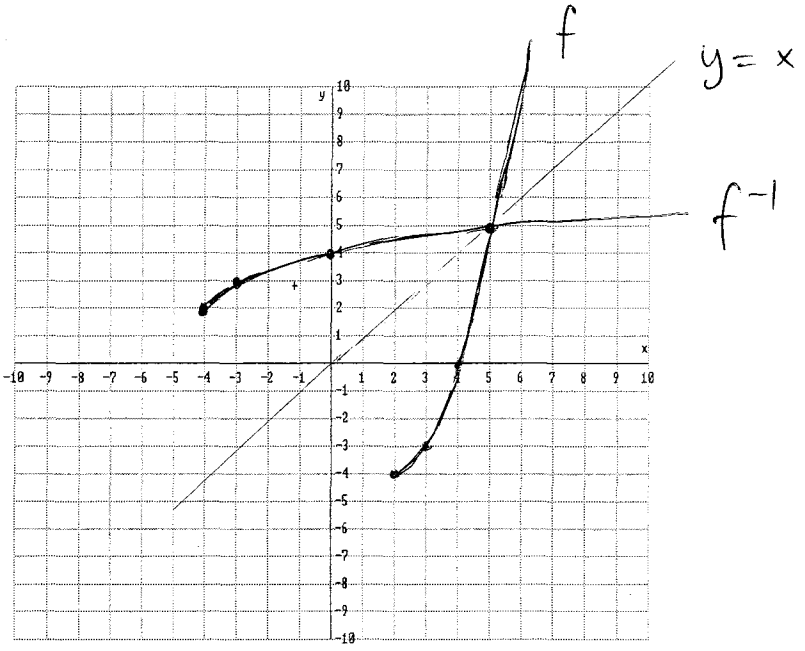
1. **Graph function *f* given by**

$$f(x) = x^2 - 4x \quad , \quad for\ x \geq 2$$

$f(x) = (x-2)^2 - 4$

Vertex $(2, -4)$

x	$f(x)$
2	-4
3	-3
4	0
5	5



2. **Find the inverse of function *f*, including its domain and range.**

$f^{-1}(x) = 2 + \sqrt{x+4}$, Domain: $[-4, +\infty)$,
Range: $[2, +\infty)$

3. **Graph the inverse of function *f* in the same system of axes as the graph of *f* and compare the two graphs.**

use above table to get

x	$f^{-1}(x)$
-4	2
-3	3
0	4
5	5

The two graphs are reflections on $y = x$.