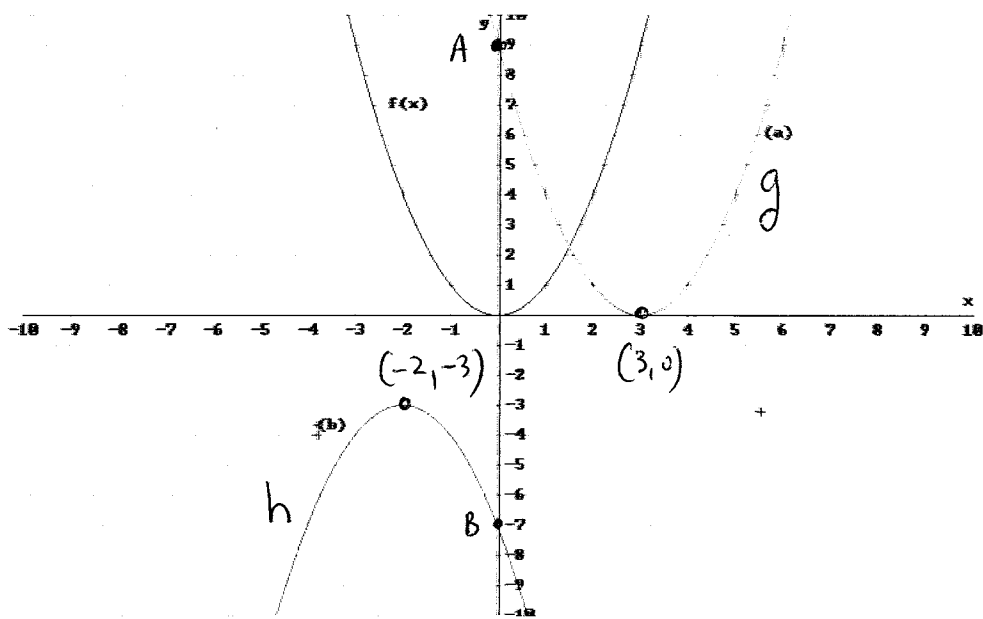


Math Worksheet: Graphs of Functions(2)

1. Given the graph of function f and its equation $f(x) = x^2$, find an equation for graph (a) and an equation for graph (b) assuming that these graphs have been obtained from the graph of f by transformations.



$$(a) \quad g(x) = a(x-3)^2$$

use y -intercept to find a .

$$g(0) = 9 = a(0-3)^2 \Rightarrow \underline{a=1}$$

$$\underline{g(x) = (x-3)^2}$$

$$(b) \quad h(x) = a(x+2)^2 - 3$$

use y -intercept to find a

$$h(0) = -7 = a(0+2)^2 - 3$$

$$a = -1 \quad \underline{h(x) = -(x+2)^2 - 3}$$