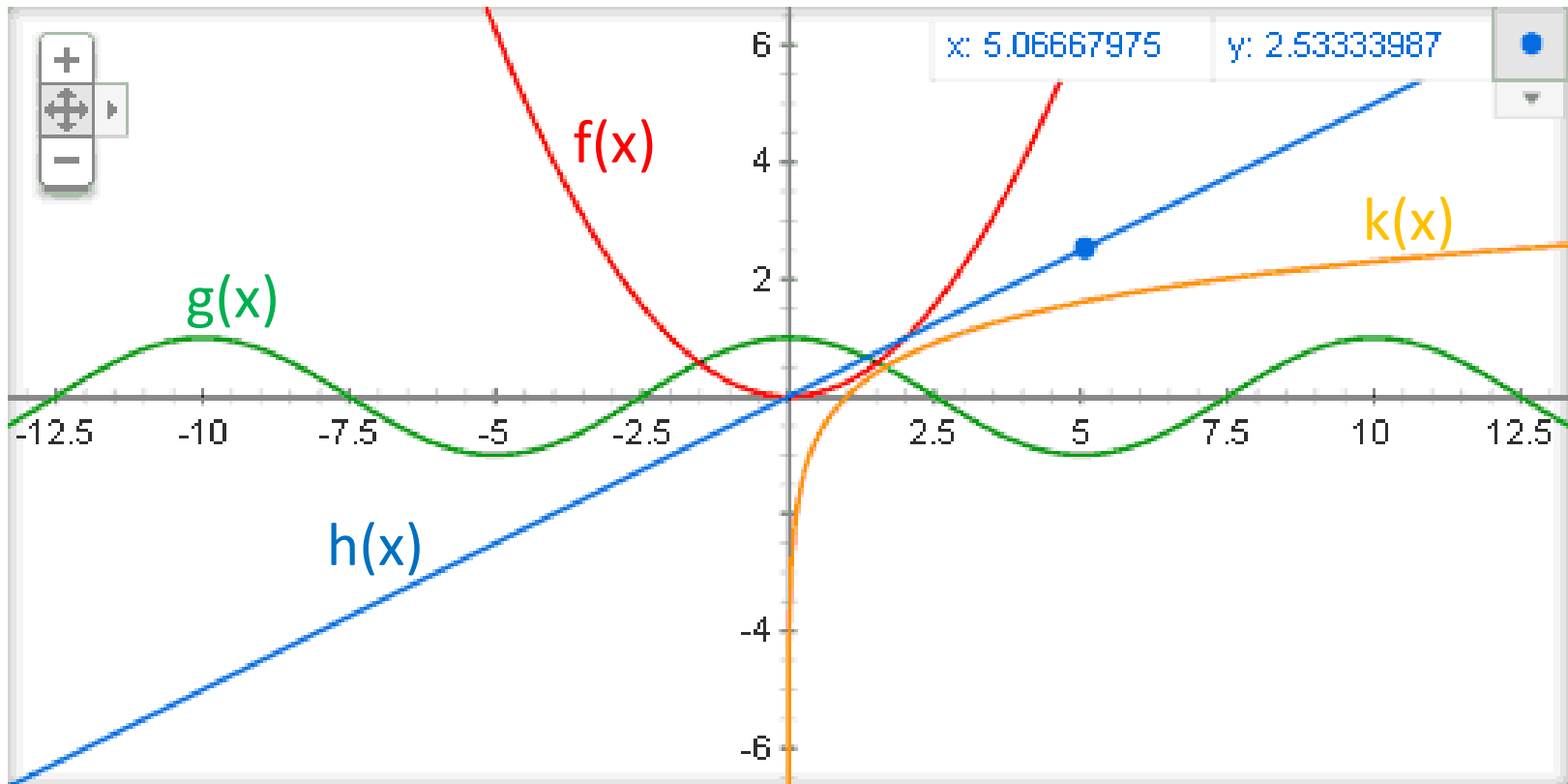# Function Notation

Functions are given different names so that communication about math is made easier.

We use letters to distinguish between different functions.

f(x), g(x), h(x), a(x), etc.

f(x) is read: "f of x"

This literally means: the function named f has x as its independent variable.

x is the independent variable.

f(x) which replaces y = is the dependent variable.

If you see a number instead of a variable (i.e. f(2) instead of f(x)), then you are supposed to evaluate the function for that value. Substitute and simplify.

Given: g(x) = 5x − 10. Evaluate g(3).

g(3) = 5(3) − 10
g(3) = 15 − 10
g(3) = 5

Given: $f(t) = 2t^2 + 1$, $h(x) = 5 - 4x$, and $A(x) = 5x$.

Evaluate: h(6), A(0), and f(-3).

$h(6) = 5 - 4(6)$ $\qquad$ $A(0) = 5(0)$
$h(6) = 5 - 24$ $\qquad$ $A(0) = 0$
$h(6) = -19$

$f(-3) = 2(-3)^2 + 1$
$f(-3) = 2(9) + 1$
$f(-3) = 19$

Use the graph to evaluate:

f(-3) = 1

g(-3) = -1

f(4) = 0

g(-1) = 3

g(x) = -1   When x = -3 and x = 1