A function is **one-to-one** if each x value in the domain is paired with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ value in the

range (function definition) and each y value in the range is paired with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ value in the

domain (one-to-one).

If every \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (horizontal or vertical) line intersects the graph of a function f in at most one point, then the function f is one-to-one.

**Horizontal Line Test (graph examples)**

**Inverse Functions To verify, show that **

Verify that the inverse of g(x) = x3 is .

Verify that the inverse of f(x) = 2x + 1 is .

Verify that the inverse of R(x) =  is .

**The graphs of inverse functions are mirror reflections over the line \_\_\_\_\_\_\_\_\_\_ .**

**If (a, b) is on f, then \_\_\_\_\_\_\_\_\_\_ is on f-1.**

**Steps to find inverse functions**

Find the inverse of f(x) = 3x – 2 g(x) = x3 + 4 h(x) = 