1. Note the contrapositive of the definition of one-to-one function given on of the text is: If a ≠ b then f(a) ≠ f(b). As we know, the contrapositive is equivalent to (another way of saying) the definition of one-to-one.

a. Consider the following function f: R → R defined by f(x) = x2 - 9 . Use the contrapositive of the definition of one-to-one function to determine (no proof necessary) whether f is a one-to-one function. Explain

b. Compute f ° f.

c. Let g be the function g: R → R defined by g(x) = x3+ 3. Find g -1

Use the definition of g-1 to explain why your solution, g-1 is really the inverse of g.

2. Compute the double sums.

a. (i-j)

3. , and

Compute:

(a) AC+ BC (It is much faster if you use the distributive law for matrices first.)

(b) 2A - 3A

(c) Perform the given operation for the following zero-one matrices.

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