Mini-Quiz 7

1. Write your name:

2. **Injections, Surjections, and Bijections**

   Let g be a function from A to B, and g a function from B to C. The composition $f \circ g$ is defined by: $f \circ g(x) = f(g(x))$.

   Determine whether each of the following statements is true or false. If it's true, prove it. If it's false, give a counterexample.

   (a) If f and g are both injective then $f \circ g$ is injective.

   (b) If f and g are both surjective then $g \circ f$ is surjective.