

2. (a) The sum of two odd functions, both with domain \mathbb{R} , is odd.

(b) The composition of two odd functions, both with domain \mathbb{R} , is even.

3. If $f : A \rightarrow B$ and $g : B \rightarrow C$ are surjective functions, then $g \circ f$ is surjective.

4. Let $f : A \rightarrow B$ be a bijective function. Then the inverse function of f is unique, i.e. if g_1 and g_2 are both inverse functions for f , then $g_1 = g_2$.

5. (a) The natural numbers and the even natural numbers are equipollent.

(b) If A and B are disjoint denumerable sets, then $A \cup B$ is a denumerable set.