**Problem 4:**

T is a solution to a SubsetSum problem with S = {s0, …, sn-1 }, and k is some non-negative integer.

Now suppose that sn-1 belongs to T, and S’ = {s0, …, sn-2 }, and k’ = k-sn-1.

If T-{ sn-1} is empty (meaning T = { sn-1}): we have *sum of elements in T* = k , hence k =sn-1, so k’’ = k-sn-1 = 0. Therefore, T-{ sn-1} is the solution for ’ and k’ = 0.

Similarly, s*um of elements in T-{ sn-1}* = k-sn-1  = k’, so T-{ sn-1} is also a solution to the SubsetSum problem with inputs S’ and k’.