Q1) side effects happen when a value present in a memory location is modified. Typical example would be during the assignment of values during variables

a) No side effect because there is no assignment taking place

b) Side effect present. Assignment of the input value to the variable x leads to a side effect

c) print() leads to a side effect

d) There are 2 locations where side effects will occur that is at sum = 0 , when the value of sum is being set to 0 and at sum+= i where the value of the sum is being modified to sum + i in each iteration.