

Homework-1

Name : Sarthak Nijhawan

Roll No. : 150070037

Question1:

Calculating sum of Two Numbers

; Adds two numbers at 50h & 60h and stores the result at 70h

```
org 0h
ljmp main
org 100h
```

; Assuming there already present some integers stored at 50h and 60h

```
main:
    mov 50h,#10
    mov 60h,#20
    mov A,50h
    add A,60h
    mov 70h,A
    here: sjmp here
END
```

Question2:

Calculate and Store partial Sums contiguously in memory

; Stores the partial sum into contiguous memory locations starting from 50h

```
org 0h
ljmp main
org 100h
```

```
main:
    mov 50h,#10 ; Say, 10 numbers
    mov r0,#50h ; Used for accessing memloc indirectly
    mov r1,#00h ; Gets incremented and added to the total after each iteration
    clr A
    loop:
        xch A,r1
        inc r1
        add A,r1
        inc r0
        mov @r0,A
        xch A,r1 ; Exchange the registers' value for comparison in Accumulator
        cjne A, 50h, loop
    stop: sjmp stop
END
```