**Fibonacci**

**Factorial**

**Largest of 2 numbers**

**Positive or negative number**

Sum of n numbers

**Swap 2 numbers.**

Counting the Number of 1's in a Binary Number.

Add 2 one dimensional arrays

A= 1,2,3,4,5

B=6,7,8,9,10

Sum= 1+5, 2+6,3+7….

Program to count positive number in array

Constraints:

Store final count in variable poscount at location 300

Data segment location starts from 108

Code segment starts from location 120

Hint :Array NUM defined as

NUM DATAWORD 10, -5, 8, -2, 3

Unconditional Branch use JUMP labelname

Ans: POSCNT EQU 300

ORIGIN 100

N DATAWORD 5

NUM DATAWORD 10, -5, 8, -2, 3

ORIGIN 120

START MOVE N,R1 ; R1 = number of elements

MOVE #NUM,R2 ; R2 = address of first number

CLR R0 ; R0 = counter = 0

LOOP Move (R2),R3 ; R3 = current number

BGTZ INCR ; if R3 > 0, go to INCR

NEXT ADD #4,R2 ; move to next element

DEC R1

BGTZ LOOP

MOVE R0,POSCNT ; store count result

INCR INC R0 ; increment count

JUMP NEXT

END START

| **Directive** | **Meaning** |
| --- | --- |
| RETURN | sends control back to caller or ends execution. |
| END START | marks end of code and specifies starting address (entry point). |
| RETURN identifies where the program terminates and instructs the assembler to generate the proper machine-level return instruction. |  |