**Task:** Solve the puzzle of Tower of Hanoi with 4 disks and calculate the minimum number of moves required?

**Code:**

.data

input: .asciiz "Input total number of Disks : "

output: .asciiz "Minimum Number of Moves required are : "

.text:

la $a0,input

li $v0,4

syscall

li $v0,5

syscall

move $t0,$v0

li $t1,2

li $t2,2

addi $t0,$t0,-1

bgtz $t0,power

power:

mul $t2,$t2,$t1

addi $t0,$t0,-1

bgtz $t0,power

addi $t2,$t2,-1

la $a0,output

li $v0,4

syscall

move $a0,$t2

li $v0,1

syscall

li $v0,10

syscall

**Output:**

