CODE:

```
.data
m:.word 0
n:.word 0
result:.word 1
answer:.asciiz"Answer (M^n) = "
valueM:.asciiz"Enter m = "
valueN:.asciiz"Enter n = "

.text
        #Enter m =
li, $v0, 4
la, $a0, valueM
syscall
        # = m input
li, $v0, 5
syscall
sw $v0, m
        #Enter n =
li, $v0, 4
la, $a0, valueN
syscall
        # = n input
li, $v0, 5
syscall
sw $v0, n

lw $t0, m
lw $t1, n
lw $t2, result
```

```
loop:
        # if (n=!0)
beqz $t1, exit
        #Result = Result * m
mul $t2, $t2, $t0
        # n--
sub $t1, $t1, 1

j loop
exit:

li, $v0, 4
la, $a0, answer
syscall

move $a0, $t2
li, $v0, 1
syscall

li, $v0, 10
syscall
.data
```

OUTPUT:

```
Enter m = 5
Enter n = 6
Answer (M^n) = 15625
```

CODE:

```
.data
n:.word 0
valueN:.asciiz "Enter n = "
n1:.word 1
result:.word 1
```

```
output:.asciiz "Output = "

.text
li, $v0, 4
la $a0, valueN
syscall

li, $v0, 5
syscall
sw $v0, n

lw $t1,n
lw $t3,n1
lw $t4, result

loop:
blez $t1, exit

sub $t2,$t1,$t3

        #(n--)
sub $t1, $t1, 1

j innerloop

innerloop:

beqz $t2, loop

mul $t4, $t4, $t2
        # t2 --
```

```
sub $t2, $t2, 1

j innerloop

exit:
add $t4, $t4, 1

li, $v0, 4
la $a0, output
syscall

li, $v0, 1
move $a0, $t4
syscall

li, $v0, 10
syscall
```

OUTPUT:

```
Enter n = 5
Output = 289
```