```
.data
        msg1:   .asciiz"Enter the number: "
        msg2:   .asciiz"The sum of integers upto "
        msg3:   .asciiz" is "
.text
.globl main
.ent main
main:
        li $v0,4
        la $a0,msg1
        syscall
        li $v0,5
        syscall
        move $t5,$v0
        addi $t0,$t5,1
        addi $t1,$0,0
        add $t2,$0,$0
loop:   slt $t3,$t1,$t0
        beq $t3,$0,exit
        add $t2,$t2,$t1
        addi $t1,$t1,1
        j loop
exit:
        li $v0,4
        la $a0,msg2
        syscall
        li $v0,1
        move $a0,$t5
        syscall
        li $v0,4
        la $a0,msg3
        syscall
        li $v0,1
        move $a0,$t2
        syscall
        jr $ra

.end main
```

Console

```
Enter the number: 5
The sum of integers upto 5 is 15
```

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```
.data
        msg1:   .asciiz"Enter the number: "
        msg2:   .asciiz"Factorial of "
        msg3:   .asciiz" is "
.text
.globl main
.ent main
main:
        li $v0,4
        la $a0,msg1
        syscall
        li $v0,5
        syscall
        move $t5,$v0
        addi $t0,$t5,1
        addi $t1,$0,1
        addi $t2,$0,1
loop:   slt $t3,$t1,$t0
        beq $t3,$0,exit
        mult $t1,$t2
        mflo $t2
        addi $t1,$t1,1
        j loop
exit:
        li $v0,4
        la $a0,msg2
        syscall
        li $v0,1
        move $a0,$t5
        syscall
        li $v0,4
        la $a0,msg3
        syscall
        li $v0,1
        move $a0,$t2
        syscall
        jr $ra
.end main
```

Console

```
Enter the number: 5
Factorial of 5 is 120
```

```
.data
        msg1:   .asciiz"Enter the number: "
        msg2:   .asciiz"Number is prime "
        msg3:   .asciiz"Number is composite "
.text
.globl main
.ent main
main:
        li $v0,4
        la $a0,msg1
        syscall
        li $v0,5
        syscall
        move $t0,$v0
        addi $t1,$0,2
loop:   slt $t2,$t1,$t0
        beq $t2,$0,prime
        div $t0,$t1
        mfhi $t3
        beq $t3,$0,composite
        addi $t1,$t1,1
        j loop
composite:
        li $v0,4
        la $a0,msg3
        syscall
        j end
prime:
        li $v0,4
        la $a0,msg2
        syscall
end:
        jr $ra
.end main
```