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BATCH-O3

ENROLLMENT NO > 18114082

CSN_221

Q> RISC Assembly program to find the Ramanujan number.

ANS>

mov r1, 1

mov r2, 0

.loop 1

mov r3, 0

mov r4, 0

.loop 2

add r4, r4, 1

.loop 3

add r5, r4, 1

mov r6, r4

mul r6, r4, r6

mul r6, r4, r6

mov r7, r5

mul r7, r5, r7

mul r7, r5, r7

add r8, r6, r7

cmp r8, r1

 beq .method 1

.method 1

add r3, 1

mov r9, r1

add r9, r9, 1

cmp r9, r5

```
bgt .loop3

cmp r9, r4

bgt .loop2

cmp r3, 2

beq .method 2

.method 2

mov r10, r1

add r2, 1

add r1, 1

cmp 1, r2

bgt .loop1
```

Answer is stored in r10 register.