**Assignment 2**

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**O6**

mov r3 1 // number considering as ramanujan number

.loop1:

mov r2 0 // counter for ramanujan number mov r2 1 mov r3 1 mov r4 0 mov r5 1

mov r4 r3 .loop2 :

mov r5 r3 .loop3:

mul r2 r4 r4 mul r2 r2 r4 mul r2 r5 r5 mul r3 r3 r5 add r4 r3 r2 mul r5 r3 r3 mul r5 r5 r3 cmp R3 r5 beq .incrementcounter .incrementcounter:

add r2 r2 1 sub r5 r5 1 cmp r5 0 bgt .loop3 sub r4 r4 1 cmp r4 0 bgt .loop2

add r3 r3 1 cmp r3 2 beq .found bgt .loop1 cmp 2 r2 bgt .loop1 .found:exit