

mov r1, 2

.loop1:

mov r4, 0

mov r2, 1

.loop2:

add r3, r2, 1

mul r5, r2, r2

mul r5, r5, r2

.loop3:

mul r6, r2, r2

mul r6, r6, r2

add r7, r5, r6

cmp r7, r1

beq .foo2

.foo3:

add r3, r3, 1

mul r6, r2, r2

mul r6, r6, r2

cmp r1, r6

bgt .loop2

add r2, r2, 1

mul r5, r2, r2

mul r5, r5, r2

cmp r1, r5

bgt .loop2

cmp r4, 2

beq .foo1

add r1, r1, 1

b .loop1

.foo1:

exit

• foo2:

add r4, r4, 1

b. foo3

Result is that the final answer is stored register r1.