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solution:

```
mov r1,2
for x:
    mov r2,1
    mov r4,0
    for y:
        add r3,r2,1
        mul r5,r2,r2
        mul r5,r5,r2
        for z:
            mul r6,r3,r3
            mul r6,r6,r3
            add r7,r5,r6
            cmp r7,r1
            beq.met2
            met3:
            add r3,r3,1
            mul r6,r3,r3
            cmp r1,r6
            bgt.for z
    add r2,r2,1
    mul r5,r2,x3r2
    mul r5,r5,r2
    cmp r1,r5
    bgt.for y
```

```
cmp r4,2
beq.met1
add r1,r1,1
b.for x
.met1
    exit
.met2
    add r4,r4,1
    b.met3
```

Final answer will be stored in register r1