

Assignment 2

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O1

mv r0 1

mv r1 0

mv r2 -1

mv r6 0

.loopI

add r0 r0 1

mv r6 0

mv r1 0

mv r2 -1

b.loopJ

.loopJ

add r1 r1 1

mv r3 r1

mul r3 r3 r3

mul r3 r3 r1

cmp r3 r0

bgt .loopI

mv r2 -1

b .loopK

.loopK

add r2 r2 1

```
mv r4 r2
mul r4 r4 r4
mul r4 r4 r2
add r5 r3 r4
cmp r5 r0
bgt .loopJ
beq .incCount
cmp r2 r1
beq .loopJ
b .loopK
```

```
.incCount
    add r6 r6 1
    cmp r6 2
    bgt .exit
    beq .exit
    b .loopJ
```

```
.exit
    ret
```

The Ramanujan number is stored in r0.