

Assignment 2
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O6

```
mov r3 1 // number considering as ramanujan number
```

```
.loop
```

```
1:
```

```
    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
```