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Batch – O4

CSN -221 Assignment 2

Program: -

```
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,r3,r3
```

```
            mul r6,r6,r3
```

```
            add r7,r5,r6
```

```
            cmp r7,r1
```

```
            beq .foo2
```

```
            .foo3:
```

```
            add r3,r3,1
```

```
        mul r6,r3,r3
        mul r6,r6,r3
        cmp r1,r6
        bgt .loop3

    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: -

Final answer is stored in register r1.