

```
def square(x):  
    return x * x
```

```
i = 0  
y = 0
```

```
while True:  
    y += square(i)  
    if y > 100000:  
        break  
    i = i + 1
```

program

```
loopstart(i1, y1)  
i2 = int_mul(i1, i1) # i*i  
y2 = int_add(y1, i2) # y += i*i  
b1 = int_gt(y2, 100000)  
guard_false(b1)  
i3 = int_add(i1, 1) # i = i+1  
jump(i3, y2)
```

Trace of program