

initialize num = 1



```
graph TD; Start(( )) --> Init[initialize num = 1]; Init --> Cond{ (num <= 50) && (num * num < 200) }; Cond -- true --> Print[print num * num]; Print --> Inc[num = num + 1]; Inc --> Cond; Cond -- false --> Exit[exit program];
```

The flowchart illustrates a loop that starts with initializing a variable 'num' to 1. It then enters a loop with a condition '(num <= 50) && (num * num < 200)'. If the condition is true, it prints 'num * num' and increments 'num' by 1, looping back to the condition. If the condition is false, it exits the program.

(num <= 50)
&& (num * num
< 200)

false

true

print num * num

num = num + 1

exit program