

# For Loop

Characteristics - runs a "fixed" # of times.

But not all processes run a fixed # of times!

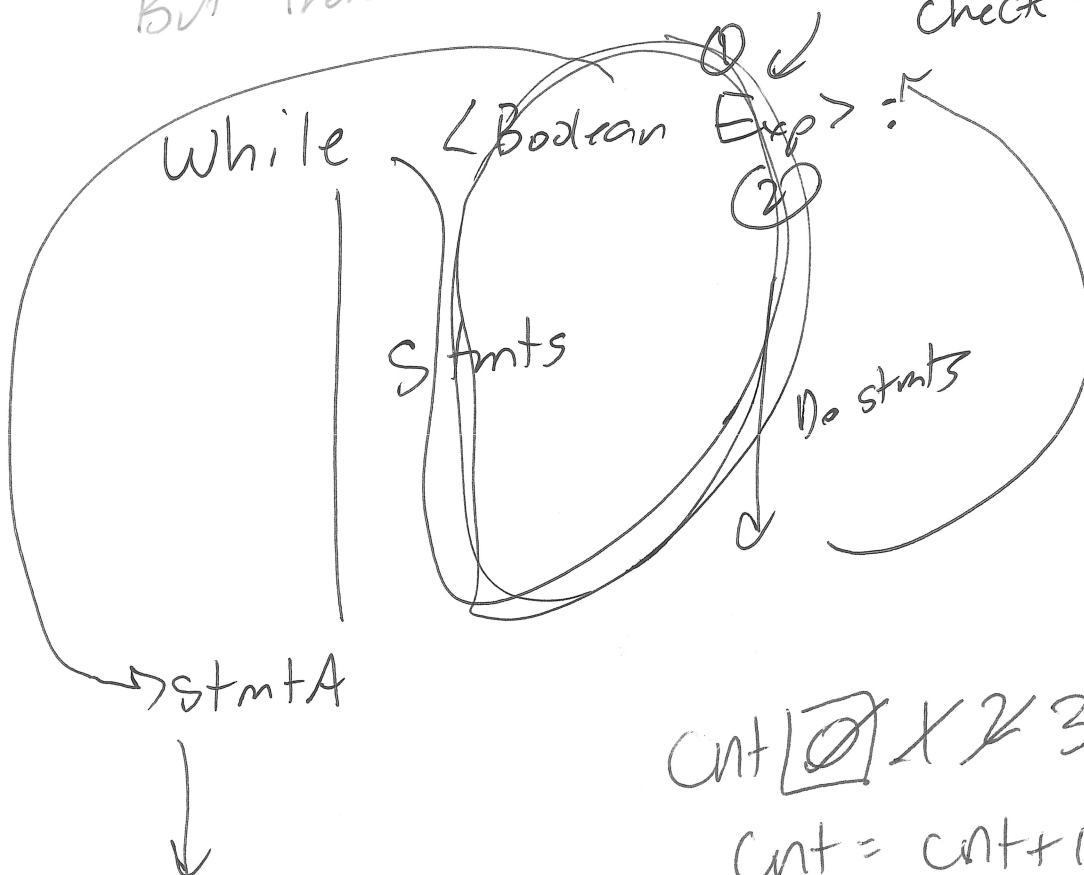
While not pass driving test:

take test

practice

In this situation # times repeat is unknown.

But there's some stopping condition.



check if true  
1st time  
expression  
is false  
skip stmts  
+ proceed to  
stmt A

cnt [ ] < 3  
cnt = cnt + 1  
cnt += 1

total ~~0~~ 10 35 40 90  
 donation ~~10~~ 25 5 90

```
total = 0
donation = int(input("what ... "))
total = total + donation
donation = int(input("... "))
total = total + donation
donation = int(input("... "))
total = total + donation
donation = int(input("... "))
total = total + donation
```

Gets 4 donations

```
total = 0
for i in range(4):
    donation = int(input("... "))
    total = total + donation
```

i ~~0~~ 1 2 3

```
#
* #
* * #
* * *
* * * *
1
2
3
4
for i in range(n):
    i 0 1 2 3 ... n-1
    # Print i+1 stars
    Prints i+1 stars
    [ for j in range(i+1):
      print("*", end="")
```

i	j		
0	0	*	first row
1	0, 1	**	second row
2	0, 1, 2	***	

$3^5$

base exp

$3^{**5}$

$3 \times 3 \times 3 \times 3 \times 3$

total  $\frac{3}{243}$  base  $\frac{3}{927}$  exp  $\frac{5}{10}$  i  $\frac{0}{10}$

for i in range (exp) = 5

~~base = base \* total~~

total = total \* base

+

2

3

4

5

9 horiz lines

9 vertical lines

STARTY = -200

NUMROWS = 8

~~NUMCOLS = 8~~

~~SQSIZE = 50~~

~~STARTX = -200~~

} how far

