

The for loop

Use for repeated operations.

Basic structure:

R CODE

```
for (n in 1:9) {  
  print(n)  
}
```

MATLAB CODE

```
for n= 1:9  
    disp(n)  
end
```

COMPONENTS OF THE FOR LOOP:

n loop variable

1:3 loop vector

disp(n) or print(n) command

Code starts with j equal to first element in loop vector

runs command

advances j to next element

repeats

quits when have covered all elements of loop vector

In more detail:

- in any for loop, we define a list of numbers, here 1 through 9. think of this as the "loop vector." The loop vector can be **any list of numbers** – it does not have to be "integers counting up."
- the loop variable, n, starts at the first number in the list. it is set equal to that value
- the commands (here, just printing the value of n to the screen) are run
- then when } or end is reached, n is reset to the NEXT number in the list, the commands are run, and the process is repeated
- it terminates when all entries of the loop vector have been used.