Lec-4
[illegible]

Code Chart

```
public static void main(String[] args) {
    int N = 5;
    for (int i = 1; i <= N; i++) {
        System.out.print(i);
    }
}
```

N = 5

1 2 3 4 5 BREAK

i=1
i=2
i=3
i=4
i=5
i=6

Exam Check

N = 3 is there to keep i from blow 2i+1 which compromises the loop condition. W/ 2n+1 (odd) but 2n(even)

Condition

2n+1

2n

2n+1

i=1 i=2 i=3

i=1 i=2 i=3

i=1 i=2 i=3

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int num = 8;
    int count = 0;
    for (int i = 1; i <= num; i++) {
        if (num % i == 0)
            count++;
    }
    if (count == 1) {
        System.out.print("Not Prime");
    } else {
        System.out.print("Prime");
    }
}
```

num % i == 0

count++

count == 1

Prime

Not Prime

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    for (int i = 1; i <= 5; i++) {
        for (int j = 1; j <= i; j++) {
            System.out.print(i);
        }
        System.out.print(i);
    }
}
```

i=1 i=2 i=3 i=4 i=5

j=1 j=2 j=3 j=4 j=5

1 2 2 3 3 3 4 4 4 4 5 5 5 5 5

i=1 i=2 i=3 i=4 i=5

j=1 j=2 j=3 j=4 j=5

Fibonacci: fibonacci(n)

0 1 1 2 3 5 8 13 21 34 55 89 144 233 ...

0 1 2 3 4 5 6 7 8 9 10 11 12 13

N = 5

1 1 1 1 1 2 3 5 8 13 21 55 ...

N=0 N=1 N=2 N=3 N=4 N=5

int[] fibonacci(int[] fibo, int n) {
    fibo[0] = 0;
    fibo[1] = 1;
    for (int i = 2; i < n; i++) {
        fibo[i] = fibo[i-1] + fibo[i-2];
    }
    return fibo;
}

int[] fibo = new int[n];

fibo[0] = 0;
fibo[1] = 1;

fibo[2] = fibo[1] + fibo[0]

fibo[3] = fibo[2] + fibo[1]

fibo[4] = fibo[3] + fibo[2]

fibo[5] = fibo[4] + fibo[3]

fibo[n-1] + fibo[n-2]

fibo[n-1] + fibo[n-2]

fibo[n-1] + fibo[n-2