

Imran Burrell

ID:1507000

Lab 3

```
public int gcd (int x, int y) {  
    int temp;  
    while (y !=0){  
        if (x>=y && x!=0){  
            temp=x;  
            x=y;  
            y=x%y;  
        }  
    }  
    return x;  
}
```

$1+n(n(1+1+1))+1$

$2+n(n(3))$

$2+n(3n)$

$2+3n^2$

$0+3n^2$

$O(n^2)$ -quadratic

```

public int hanoi(int n) {
    int temp;
    while (n==1){
        if(n>1){
            temp=2*(n-1)+1;
            return temp;
        }
    }
    return 1;
}

```

$$1+n(n(1+1))+1$$

$$2+n(n(2))$$

$$2+2n^2$$

$$2n^2$$

$$N^2$$