```
int gcd(int x, int y)
 {
        int temp;                    1
        while (y!=0)                  n
        {
              if (x>=y && x!=0)       n
              {
                    temp=x;           1
                    x=y;              1
                    y=temp;           1
              }

        }
  return x;                          1
 }
```

O (gcd)= 1 (n (n (1+1+1) +1))

=1 (n (3n) +1)

=3n^2 + 1

=n^2

=quadratic

```
int hanoi(int n)
{
   while(n!=1)                       n
    {
      if(n>1)                        n
         {
              return 2*hanoi(n-1)+1;      1
```

```
        }
    }
                return 1;           1
}
```

O(hanoi)= n (n (1+1))

=n (2n)

=2n^2

=n^2

=quadratic