```
int gcd(int x, int y) {
          int temp;……..1

          while(y!=0) {…… n
               if(x>=y && x!=0) { …….1
                    temp=x; …… 1
                    x=y; ……..1
                    y=temp%y; ……..1

               }
          }
          return x;


     }
```

Big O(gcd)= 1+n+1(3)

= 4 + n

= **n**

```
int hanoi(int n) {

          int temp; ……..1
          while (n!=1) { …….1

               if(n>1) {…… 1
               temp = 2* hanoi(n-1); ……..n
               n=temp +1;…….1

               return n;
               }

          }

          return n;
     }
```

Big O (Hanoi)= 1+ 1(1(n+1))

= 1+1(1(n+1)

= n+2

= **n**