

```

1 // 3n+1
2 #include<stdio.h>
3 int main(){
4     int i,j,n;
5     while(scanf("%d %d",&i,&j) != EOF){
6         int max=0;
7         printf("%d %d ",i,j);
8         if(i>j){
9             int temp = i;
10            i = j;
11            j = temp;
12        }
13        while(i<=j){
14            n = i;
15            int ans=1;
16            while(n!=1){
17                n = n%2==0 ? n/2 : 3*n+1;
18                ans++;
19            }
20            i++;
21
22            max = ans>max? ans:max;
23        }
24        printf("%d\n",max);
25    }
26    return 0;
27 }
28

```

```

1 //          UGLY NUMBER
2 #include<stdio.h>
3 int main() {
4     int i=1,j=1,k=1,count=1;
5     int arr[1500]={1};
6     while(count<1500){
7         int t1=arr[i-1]*2,t2=arr[j-1]*3,t3=arr[k-1]*5;
8
9         int temp = (t1<=t2 && t1<=t3) ? t1: (t2<=t1 && t2<=t3)? t2:t3;
10        if(temp == arr[count-1]){
11            arr[count-1]==t1 ? i++: arr[count-1]==t2 ? j++:k++;
12        }
13        else{
14            arr[count] = temp;
15            arr[count]==t1 ? i++: arr[count]==t2 ? j++:k++;
16            count++;
17        }
18
19    }
20    printf("The 1500'th ugly number is %d.\n",arr[1500-1]);
21    return 0;
22 }
23

```

```
1 // kindergarden_counting_game
2 #include<stdio.h>
3
4 int main(){
5     char str[1001];
6     while(gets(str)){
7         int i=0, count=0, check=0;
8         while(str[i]!='\0'){
9             if(str[i]>=65 && str[i]<=90 || str[i]>=97 && str[i]<=122){
10                 check=1;
11             }
12             else{
13                 if(check){
14                     count++;
15                     check=0;
16                 }
17             }
18             i++;
19         }
20         if(check) count++;
21         printf("%d\n", count);
22     }
23     return 0;
24 }
25
```

```

1 // JOLLY JUMPERS
2 #include<stdio.h>
3 #include<math.h>
4 int main(){
5     int n,arr[3000],dif[3000],i,j,jolly=1,found=1;
6     while(scanf("%d",&n)!=EOF){
7         jolly=1;
8         for(i=0;i<n;i++){
9             scanf("%d",&arr[i]);
10        }
11        for(i=0;i<n-1;i++){
12            dif[i] = (int)(abs(arr[i+1]-arr[i]));
13        }
14        for(i=0;i<n-1;i++){
15            found = 0;
16            for(j=0;j<n-1;j++){
17                if(dif[j]==i+1){
18                    found = 1;
19                    break;
20                }
21            }
22            if(found==0){
23                jolly=0;
24                break;
25            }
26        }
27        if(jolly) printf("Jolly\n");
28        else printf("Not jolly\n");
29    }
30    return 0;
31 }
32

```

```
1 // CONTEST A
2 #include<stdio.h>
3 int main(){
4     char str[1001];
5     while(gets(str)){
6         int i=0,count=0,check=0;
7         while(str[i]!='\0'){
8             if(str[i]>=65 &&str[i]<=90 || str[i]>=97 && str[i]<=122){
9                 check=1;
10            }
11            else{
12                if(check){
13                    count++;
14                    check=0;
15                }
16            }
17            i++;
18        }
19        if(check) count++;
20        printf("%d\n",count);
21    }
22    return 0;
23 }
24
```

```

1 // CONTEST B
2 #include<stdio.h>
3 int main()
4 {
5     int i,j,n;
6     while (scanf("%d %d",&i,&j) != EOF)
7     {
8         int max=0;
9         printf("%d %d ",i,j);
10
11         int temp = i>=j ? i : j;
12         i = i>=j ? j : i;
13         j=temp;
14         while(i<=j)
15         {
16             n = i;
17             int ans=1;
18             while(n!=1)
19             {
20                 n = n%2==0 ? n/2 : 3*n+1;
21                 ans++;
22             }
23             i++;
24             max = ans>max? ans:max;
25         }
26         printf("%d\n",max);
27     }
28     return 0;
29 }
30

```

```

1 // CONTEST E
2 #include<stdio.h>
3 int GCD(int a,int b)
4 {
5     int gcd=1;
6     for(int i=1; i <= a && i<=b;i++)
7     {
8         if(a%i==0&&b%i==0)
9             gcd = i;
10    }
11    return gcd;
12 }
13
14 int main()
15 {
16
17     while(1)
18     {
19         int n;
20         scanf("%d",&n);
21         if(n==0) break;
22         else
23         {
24             long long int G=0;
25             for(int i=1; i<n; i++)
26             {
27                 for(int j=i+1; j<=n; j++)
28                 {
29                     G+=GCD(i,j);
30                 }
31             }
32
33             printf("%lld\n",G);
34         }
35     }
36     return 0;
37 }
38

```

```

1 // CONTEST F
2 #include<stdio.h>
3 long long int reverseAndAdd(long long int n){
4     long long int a=0,temp=n;
5     while(n>0){
6         a*=10;
7         a+=n%10;
8         n/=10;
9     }
10    return a+temp;
11 }
12 int isPalindrom(long long int n){
13     long long int a=0,temp=n;
14     while(n>0){
15         a*=10;
16         a+=n%10;
17         n/=10;
18     }
19     return a==temp;
20 }
21
22 int main(){
23     int t;
24     scanf("%d",&t);
25     while(t){
26         t--;
27         int a;
28         scanf("%d",&a);
29         long long int n;
30         n=a;
31         int count=0;
32         while(!isPalindrom(n)){
33             n = reverseAndAdd(n);
34             count++;
35         }
36         printf("%d %lld\n",count,n);
37     }
38     return 0;
39 }
40
41
42

```



```

1 // CONTEST I
2 #include<stdio.h>
3 int main()
4 {
5
6     int t;
7     scanf("%d",&t);
8     int cas=1;
9     while(cas<=t)
10    {
11        int a,b,c;
12        scanf("%d%d%d",&a,&b,&c);
13        int maxm = a>=b ? a>=c ? a:c : b>=c ? b:c;
14        int mini = a<=b ? a<=c ? a:c : b<=c ? b:c;
15        printf("Case %d: %d\n",cas,a+b+c-maxm-mini);
16        cas++;
17    }
18    return 0;
19 }
20

```

```
1 // CONTEST K
2 #include<stdio.h>
3 int main() {
4
5     int n;
6     scanf("%d", &n);
7     long long int a=1;
8     for(int i=0; i<n; i++) {
9         a*=2;
10    }
11    printf("%lld\n", 2*(a-1));
12    return 0;
13 }
14
```

```

1 // CONTEST L
2 #include<stdio.h>
3 int main() {
4     int n,a;
5     while(1) {
6         scanf("%d",&n);
7         if(n==0) break;
8         int row[n],col[n];
9         for(int i=0;i<n;i++){row[i]=0;col[i]=0;}
10        for(int i=0;i<n;i++){
11            for(int j=0;j<n;j++){
12                scanf("%d",&a);
13                col[j]+=a;
14                row[i]+=a;
15            }
16        }
17        int c1=0,c2=0;
18        int r,c;
19        for(int i=0;i<n;i++){
20            if(row[i]%2==1){
21                c1++;
22                r=i+1;
23            }
24            if(col[i]%2==1){
25                c2++;
26                c=i+1;
27            }
28        }
29
30        if(!(c1+c2)){
31            printf("OK\n");
32        }
33        else if(c1==1 && c2==1){
34            printf("Change bit (%d,%d)\n",r,c);
35        }
36        else{
37            printf("Corrupt\n");
38        }
39    }
40    return 0;
41 }
42
43

```