Answer to the question no-01

```c
#include<stdio.h>
int Calculate_sum(int a)
{
    int sum=0;
    for(int i=0;i<a;i++)
    {
        int b=i/3;
        if(b%2==0)
        {
            sum=sum+(i+1);
        }
        else
        {
            sum=sum-(i+1);
        }
    }
    return sum;
}
int main()
{
    int a;
    scanf("%d",&a);
    int sum=Calculate_sum(a);
    printf("%d",sum);
    return 0;
}
```

Answer to the question no-02

```c
#include<stdio.h>
#include<string.h>
void sort_again(char R[])
{
    int len=strlen(R);
    int A[125];
    for(int i=0;i<125;i++)
    {
        A[i]=0;
    }
    for(int i=0;i<len;i++)
    {
        A[R[i]]++;
    }
    for(int i=122;i>=97;i--)
    {
        if(A[i]>0)
        {
            for(int j=1;j<=A[i];j++)
            {
                printf("%c",i);
            }
        }
    }
}
int main()
{
    char R[1000];
    scanf("%s",R);
    sort_again(R);
    return 0;
}
```

Answer to the question no-03

```c
#include<stdio.h>
int main()
{
    int x,y;
    scanf("%d%d",&x,&y);
    int *ptrX;
    int *ptrY;
    ptrX=&x;
    ptrY=&y;
    printf("%d %d",*ptrX,*ptrY);
    return 0;
}
```

Answer to the question no-04

```c
#include<stdio.h>
void consecutive_even_number(int a)
{
    int b=(a/4)-3;
    if(b%2==0)
    {
        for(int i=b; i<=(b+6); i=i+2)
        {
            printf("%d ",i);
        }
        printf("\n");
    }

}
int main()
{
    int T,N;
    scanf("%d",&T);
```

```c
   for(int i=1; i<=T; i++)
   {
      scanf("%d",&N);
      consecutive_even_number(N);
   }
   return 0;
}
```

[note-this code will work if the number 'N/4' is an odd number, otherwise it will show blank.]

Answer to the question no-05

```c
#include<stdio.h>
int g;
int odd_odd_even_even(int A[])
{
   int sum=0;
   for(int i=1;i<=g;i++)
   {
      if(i%2==0 && A[i]%2==0)
      {
         sum=sum+i+A[i];
      }
      else if(i%2!=0 && A[i]%2!=0)
      {
         sum=sum+i+A[i];
      }
   }
   return sum;
}
int main()
{
   int n;
   scanf("%d",&n);
   int R[n+1];
```

```c
    for(int i=1;i<=n;i++)
    {
        scanf("%d",&R[i]);
    }
    g=n;
    int r=odd_odd_even_even(R);
    printf("%d",r);
    return 0;
}
```

Answer to the question no-06

```c
#include<stdio.h>
int g;
int div_3(int A[])
{
    int sum=0;
    for(int i=0;i<g;i++)
    {
        if(A[i]%3==0||div_5(A[i])==1)
        {
            sum++;
        }
    }
    if(sum>0)
    {
        return sum;
    }
    else
    {
        return -1;
    }
}
int div_5(int a)
```

```c
{
    if(a%5==0)
    {
        return 1;
    }
    else
    {
        return 0;
    }
}
int main()
{
    int n;
    scanf("%d",&n);
    int R[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&R[i]);
    }
    g=n;
    int r=div_3(R);
    printf("%d",r);
    return 0;
}
```

Answer to the question no-07

```c
#include<stdio.h>
void swap(int *x,int *y)
{
    int a=*x;
    *x=*y;
    *y=a;
}
```

```c
int main()
{
    int n;
    scanf("%d",&n);
    int R[n];
    for(int i=1;i<=n;i++)
    {
        scanf("%d",&R[i]);
    }
    int a;
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
    {
        int c,d;
        scanf("%d%d",&c,&d);
        swap(&R[c],&R[d]);
    }
    for(int i=1;i<=n;i++)
    {
        printf("%d ",R[i]);
    }
    return 0;
}
```

Answer to the question no-08

```c
#include<stdio.h>
#include<string.h>
void broken_keyboard(char R[])
{
    int len=strlen(R);
    for(int i=0;i<len;i++)
    {
        if(i%2==0)
```

```c
        {
            printf("%c",R[i]);
        }
        else
        {
            for(int j=1;j<=2;j++)
            {
                printf("%c",R[i]);
            }
        }
    }
}
int main()
{
    char R[1000];
    scanf("%s",R);
    broken_keyboard(R);
    return 0;
}
```

Answer to the question no-09

```c
#include<stdio.h>
int g;
int is_prime(int *p)
{
    int a=*p;
    if(a==1)
    {
        return 0;
    }
    for(int i=2;i<a;i++)
    {
        if(a%i==0)
```

```c
        {
            return 0;
        }
    }
    return 1;
}
float avg(int A[])
{
    float sum=0,a=0;
    for(int i=1;i<=g;i++)
    {
        if(A[i]%2==0)
        {
            sum=sum+A[i];
            a++;
        }
    }
    return sum/a;
}
int main()
{
    int n,a=0;
    scanf("%d",&n);
    g=n;
    int R[n+1];
    for(int i=1;i<=n;i++)
    {
        scanf("%d",&R[i]);
    }
    for(int i=1;i<=n;i++)
    {
        if(is_prime(&R[i])==1)
        {
            a++;
        }
```

```c
    }
    printf("Prime numbers:%d\n",a);
    printf("Average of all positive integers:%.2f\n",avg(R));
    return 0;
}
```

Answer to the question no-10

```c
#include<stdio.h>
int carry_7(int *p)
{
    int a=*p;
    int b=0;
    while(a>0)
    {
        if(a%10==7)
        {
            b++;
        }
        a=a/10;
    }
    return b;
}
int main()
{
    int n,d=0;
    scanf("%d",&n);
    int R[n+1];
    for(int i=1; i<=n; i++)
    {
        scanf("%d",&R[i]);
    }
    for(int i=1; i<=n; i++)
    {
```

```c
        int b=carry_7(&R[i]);
        d=d+b;
    }
    if(n%2!=0)
    {
        int a=n/2+1;
        if(d>=a)
        {
            printf("Beautiful");
        }
        else
        {
            printf("Ugly");
        }
    }
    else
    {
        int a=n/2;
        if(d>=a)
        {
            printf("Beautiful");
        }
        else
        {
            printf("Ugly");
        }
    }
    return 0;
}
```