

```
#include<stdio.h>

#include<math.h>

int main()
{
    float x[10],y[10],temp=1,f[10],sum,p;

    int i,n,j,k=0,c;

    printf("how many record you will be enter: \n");

    scanf("%d",&n);

    for(i=0;i<n;i++)
    {
        printf("Enter the value of x%d\n",i);

        scanf("%f",&x[i]);

        printf("Enter the value of f(x%d)\n ",i);

        scanf("%f",&y[i]);

    }

    printf("Enter x for finding f(x)\n");

    scanf("%f",&p);

    for(i=0;i<n;i++)
    {

        temp=1;

        k=i;
```

```
        for(j=0;j<n;j++)
        {
            if(k==j)
            {
                continue;
            }
            else
            {
                temp=temp*((p-x[j])/(x[k]-x[j]));
            }
        }

        f[i]=y[i]*temp;
    }
}
```

```
for(i=0;i<n;i++)
{
    sum=sum+f[i];

}

printf("f(%.1f) = %f \n",p,sum);
}
```