```
#include<stdio.h>
#include<conio.h>
void main()
{     float x[100],y[100],a,s=1,t=1,k=0;
      int n,i,j,d=1;
      printf("\n\n Enter the number of the terms of the table: ");
      scanf("%d",&n);
      printf("\n\n Enter the respective values of the variables x and y:
\n");
      for(i=0; i<n; i++)
      {     scanf ("%f",&x[i]);
            scanf("%f",&y[i]);
      }
      printf("\n\n The table you entered is as follows :\n\n");
      for(i=0; i<n; i++)
      {     printf("%0.3f\t%0.3f",x[i],y[i]);
            printf("\n");
      }
      while(d==1)
      {     printf(" \n\n\n Enter the value of the x to find the
respective value of y\n\n\n");
            scanf("%f",&a);
            for(i=0; i<n; i++)
            {     s=1;
                  t=1;
                  for(j=0; j<n; j++)
                  {     if(j!=i)
```

```
                    {     s=s*(a-x[j]);
                          t=t*(x[i]-x[j]);
                    }
               }
               k=k+((s/t)*y[i]);
          }
          printf("\n\n The respective value of the variable y is:
%f",k);
          printf("\n\n Do you want to continue?\n\n Press 1 to continue
and any other key to exit");
          scanf("%d",&d);
     }
     getch();
}
```

```
0 3
2 1
3 12

 The table you entered is as follows :

-1.000  8.000
0.000   3.000
2.000   1.000
3.000   12.000


 Enter the value of the x to find the respective value of y

1

 The respective value of the variable y is: -0.666667

 Do you want to continue?

 Press 1 to continue and any other key to exit_
```