

```

#include <stdio.h>
#include <stdlib.h>
#define MAXSIZE 10

void main()
{
    int a[MAXSIZE];
    int i, N, power;
    float x, polySum;
    printf("Enter the order of the polynomial\n"); /* enter order
of polynomial */
    scanf("%d", & N);
    printf("Enter the value of x\n"); /* value of x */
    scanf("%f", & x);

    /*Read the coefficients into an array*/

    printf("Enter %d coefficients\n", N + 1);
    for (i = 0; i <= N; i++) {
        scanf("%d", & a[i]);
    }
    polySum = a[0];
    for (i = 1; i <= N; i++) {
        polySum = polySum * x + a[i]; /* calculating the polysum */
    }
    power = N;

    printf("Given polynomial is: \n");
    for (i = 0; i <= N; i++)
    {
        if (power < 0)
        {
            break;
        }
        /* displaying polynomial */
        if (a[i] > 0 & i!=0)
            printf(" + ");
        else if (a[i] < 0)
            printf(" - ");
        else
            printf(" ");
        printf("%dx^%d ", abs(a[i]), power--);
    }
}

```

```
    printf("\nSum of the polynomial = %6.2f\n", polySum); /*  
displays the sum */  
}
```