

```
%Name - Shriman Zunjarrao Patil
% Roll No. - TYMEB209
% Batch - B4

n = input('Enter the value of n = ');
Xg = input('Enter the Value of Xg = ');
for i = 1:1:n
    X(i) = input('Enter the value of x = ');
    Y(i) = input('Enter the value of y = ');
end
Yg = 0;
for i = 1:1:n
    term = Y(i);
    for j = 1:1:n
        if i~=j
            term = term*(Xg-X(j))/(X(i)-X(j));
        end
    end
    Yg = Yg + term;
end
fprintf('The value of Yg is = %f',Yg);
```

#### %OUTPUT

```
Enter the value of n = 4
Enter the Value of Xg = 1.1
Enter the value of x = 1
Enter the value of y = 1
Enter the value of x = 1.2
Enter the value of y = 1.09
Enter the value of x = 1.3
Enter the value of y = 1.14
Enter the value of x = 1.5
Enter the value of y = 1.22
The value of Yg is = 1.041333>>
```