

Tablica.m

```
X = [100 121 144];  
Y = [10 11 12];
```

NovaTablica.m

```
tablica;  
n = length(X);  
X1 = zeros(1,2*n-1);  
Y1 = zeros(1,2*n-1);  
  
for i=1:2:2*n-1  
    X1(i) = X(round(i/2));  
    Y1(i) = Y(round(i/2));  
end;  
  
for i=2:2:2*n-2  
    X1(i) = (X(round(i/2))+X(round(i/2+1)))./2;  
    Y1(i) = (Y(round(i/2))+Y(round(i/2+1)))./2;  
end;  
disp(X1);  
disp(Y1);
```

lagr1.m

```
function L = Lagr1(x)  
  
tablica; %ukljucujemo tablicu sa kojom radimo  
n = length(X); % odredjuje duzinu vektora X  
L = 0; % polinom u startu dobija vrednost NULA  
for i=1:n  
    p=1;  
    for j=1:n  
        if i~=j  
            p = p*(x-X(j))/(X(i)-X(j));  
        end;  
    end;  
    L = L+p*Y(i);  
end;
```

lagr2.m

```
function Lagr1b = Lagr1b(x)
```

```
    tablica;
```

```
    n = length(X)-1;
```

```
    L = zeros(1,n+1)
```

```
    for i = 1:n+1
```

```
        p=1;
```

```
        for j=1:n+1
```

```
            if i~=j
```

```
                p = conv(p,[1 -X(j)]/(X(i)-X(j)));
```

```
            end;
```

```
        end;
```

```
        L = L + p.*Y(i);
```

```
    end;
```

```
    Lagr1b = polyval(L,x);
```