```
x =[2 2.2 2.4 2.6 2.8]';
y = [0.5103757 0.5207843 0.5104147 0.4813306 0.4359160]';
n=2.5;
P= zeros(length(y));
P(:,1)=y';
k=1;
for i=2 : length(y)
    for j=i : length(y)
         P(j,i)=((x(j)-n)*y(j-1)-(x(j-k)-n)*y(j))/(x(j)-x(j-k));
    end
   k=i;
   y=P(:,i);
   y
end
```

```
y = 5×1
         0
    0.5364
    0.5052
    0.4959
    0.5040
y = 5×1
         0
         0
    0.4974
    0.4982
    0.4979
y = 5×1
         0
         0
         0
    0.4981
    0.4981
y = 5×1
         0
         0
         0
         0
    0.4981
```

```
P
```

```
P = 5×5
    0.5104         0         0         0         0
    0.5208    0.5364         0         0         0
    0.5104    0.5052    0.4974         0         0
    0.4813    0.4959    0.4982    0.4981         0
    0.4359    0.5040    0.4979    0.4981    0.4981
```

```
array2table(P)
```

ans = 5×5 table

	P1	P2	P3	P4	P5
1	0.5104	0	0	0	0
2	0.5208	0.5364	0	0	0

	P1	P2	P3	P4	P5
3	0.5104	0.5052	0.4974	0	0
4	0.4813	0.4959	0.4982	0.4981	0
5	0.4359	0.5040	0.4979	0.4981	0.4981

PROBLEMA N°1

x =[-1 0 1 3]';

y = [0 1 -2 4]';

Ejemplo del método de Neville:

x	-1	0	1	3
y	0	1	-2	4

en $x = 2$

$$\begin{array}{c|cccc} 3 & 0 & & & \\ & & 3 & & \\ 2 & 1 & & -9 & \\ & & -5 & & -3 \\ 1 & -2 & & -1 & \\ & & 1 & & \\ -1 & 4 & & & \end{array} \Rightarrow p(2) = -3$$

PROBLEMA N°2

==========

==========

x =[2 2.2 2.4 2.6 2.8]';

y = [0.5103757 0.5207843 0.5104147 0.4813306 0.4359160]';

	x	$f(x)$
x_0	2.0	0.5103757
x_1	2.2	0.5207843
x_2	2.4	0.5104147
x_3	2.6	0.4813306
x_4	2.8	0.4359160

.

Solución:

x_0	P_0				
x_1	P_1	$P_{0,1}$			
x_2	P_2	$P_{1,2}$	$P_{0,1,2}$		$f(2,5)$
x_3	P_3	$P_{2,3}$	$P_{1,2,3}$	$P_{0,1,2,3}$	$\downarrow$
x_4	P_4	$P_{3,4}$	$P_{2,3,4}$	$P_{1,2,3,4}$	$P_{0,1,2,3,4}$

La tabla de Neville es

2.0	0.5103757				
2.2	0.5207843	$\boxed{0.5363972}$	$\hookleftarrow P_{0,1}$		
2.4	0.5104147	0.5052299	0.4974380		
2.6	0.4813306	0.4958726	0.4982119	0.4980829	
2.8	0.4359160	0.5040379	0.4979139	0.4980629	0.49807047