

```

1  #include <iostream>
2
3  using namespace std;
4
5  void muestra (int *v, int ini, int fin){
6
7      for (int i=ini; i<=fin; i++){
8          cout << v[i] << ", ";
9      }
10     cout << endl;
11 }
12
13
14 int Maximo(int a, int b){
15     return (a>b?a:b);
16 }
17
18 int Minimo(int a, int b){
19     return (a<b?a:b);
20 }
21
22
23 int Mediana2v(int *X, int *Y, int primX, int ultX, int primY, int ultY){
24
25     int posX,posY,nitems;
26
27     if (primX>=ultX && primY>=ultY) // caso base
28         return Minimo(X[ultX],Y[ultY]);
29
30     nitems=ultX-primX+1;
31     if (nitems==2){ // 2 vectores de 2 elementos cada uno
32         if (X[ultX]<Y[primY])
33             return X[ultX];
34         else
35             if (Y[ultY]<X[primX])
36                 return Y[ultY];
37             else
38                 return Maximo(X[primX],Y[primY]);
39     }
40
41     nitems=(nitems-1)/2; // caso general
42     posX=primX+nitems;
43     posY=primY+nitems;
44     muestra(X,ultX-nitems,ultX);
45     muestra(Y,primY,primY+nitems);
46     if (X[posX]==Y[posY])
47         return X[posX];
48     else{
49
50         if (X[posX]<Y[posY])
51             return Mediana2v(X,Y,ultX-nitems,ultX,primY,primY+nitems);
52         else
53             return Mediana2v(X,Y,primX,primX+nitems,ultY-nitems,ultY);
54     }
55 }
56
57 int main(){
58
59     int N=4;
60     int v[]={1,2,3,9};
61     int w[]={0,6,7,8};
62
63     cout << "Elemento Mediana de 2 vectores: " << Mediana2v(v, w, 0, N-1, 0, N-1) << endl;
64
65     return 0;
66 }

```