FIND MAXIMUM AND MINIMUM

```
Algorithm MaxMin(i, j, max, min)
{
      if(i = j) then
            max := min := A[i];
      else if(i = j-1) then
      {
            if(A[i] < A[j]) then
            {
                  max := A[j];
                  min := A[i];
            }
            else
            {
                  max := A[i];
                  min := A[j];
            }
      }
      else
      {
            mid := (i + j)/2;
            MaxMin(i, mid, max, min)
            MaxMin(mid+1, j, ,max1, min1);
            if(max < max1) then
                  max := max1;
            if(min > min1) then
                  min := min1;
      }
}
```