```
findPeak(A, low, high):
   low = 0
   high = len(A) – 1
   if (low == high)
    return A[low]

  if ((high == low + 1) && A[low] >= A[high])
    return A[low]

  if ((high == low + 1) && A[low] < A[high])
    return A[high]

  int mid = (low + high)/2

  if ( A[mid] > A[mid + 1] && A[mid] > A[mid - 1])
    return A[mid]

  if (A[mid] > A[mid + 1] && A[mid] < A[mid - 1])
   return findPeak(A, low, mid-1)
  else
   return findPeak(A, mid + 1, high)
```