```
bound(first, last, *first);
§??
§??
de
 du-
pli-
 \mathop{cates}_{\S\ref{eq:cates}}
  O(\log(m +
  n))
                        O(m+
 n)k
  mkO(k)O(1)km+
 nO(m+
 n)
                        _{k/2k/2k/2k/2kk}^{kkk}
 \begin{array}{c} A \cup \\ B \cup \\ A \cup \\ B k \end{array}
                       k/2
  k/2
 \begin{array}{l} h(A.begin(),A.end(),B.begin(),B.end(),total/2+\\ 1);elsereturn(find_kth(A.begin(),A.end(),B.begin(),B.end(),total/2)+\\ \end{array}
   find_kth(A.begin(), A.end(), B.begin(), B.end(), total/2+
  1))/2.0;
  iteratorIter;
  \hat{k}th(IterbeginA, IterendA, IterbeginB, IterendB, intk)//always assume that mise qualor smaller than no on stint mediate the state of the state o
  kth(beginA +
 ia, endA, beginB, endB, k-ia); else if (*(beginA+
 ia—1) >
  *[begin B +
  1)) return find_k th (begin A, end A, begin B +
  ib, endB, k
  ib); elser eturn*
   (beginA +
 ia-1);;
  O(n)
  O(n \log n)O(n)
  map < O(n)
  int, bool >
 used_{m}ap < int, bool >
  used;
 \underset{int,\,int}{map} <
  map.http://discuss.lintcode.com/questions/1070/longest-consecutive-sequence
   int, int >
  map; int size = \\
 num.size(); intl = 1; for(inti = 1)
  0; i <
   +) if(map.find(num[i])! = map.end()) continue; map[num[i]] = 1; if(map.find(num[i]-1)! = map.end()) l = max(l, map.find(num[i]-1)!) l = map.end() l = max(l, map.find(num[i]-1)!) l = max(l, map.find(nu
 0?0:
  map, intleft, intright) in tupper = right + map[right] - 1; intlower = left - map[left] + 1; intlength = upper - lower + 1
  O(n^2)
                        O(n)
                      O(n \log n)O(n)O(n \log n)
 map < int, int >
  mapping; vector <
 int > result; for (inti =
  0: i <
  num.size(); i+
   +)mapping[num[i]] = i; for(inti = i)
  0; i < 1
```