

$(1,2,3) \implies (( ), (2), (3), (2,3), (1), (1,2), (1,3), (1,2,3))$

$(2,3) \implies (( ), (2), (3), (2,3))$

$5 \implies \text{false}$

$4 \implies \text{true}$

$3 \implies \text{false}$

Algorithm isEven(n)

n    if n = 0 then

1        return true

n    return ! isEven(n-1)

$\text{power}(x, 4) \implies x * x * x * x$

$\text{power}(x, 3) \implies x * x * x$

Algorithm power(x, k)

    if k=0 then

        return 1

    return power(x, k-1) \* x

Algorithm removeDups(L)

```
1  newL := new List
1  PQ := new PriorityQueue
1  p := L.first()
1  e := p.element()
1  PQ.insertItem(e, e)
n  while ! L.isLast(p) do
n      p := L.after(p)
n      e := p.element()
nlg  PQ.insertItem(e, e)
n  while ! PQ.isEmpty() do
nlg  e := PQ.removeMin()
n      newL.insertLast(e)
n      while !PQ.isEmpty() /\ e = PQ.minKey() do
nlg          PQ.removeMin()
1  return newL
nlog n
```

Algorithm insertionSort(L)

  if L.size() <= 1 then return

  p := L.first()

  while ! L.isLast(p) do

    p := L.after(p)

    q := p

    e := p.element()

    while !L.isFirst(q) /\ e < L.before(q).element() do

      q := L.before(q)

      L.replaceElement(L.after(q), q.element())

    L.replaceElement(q, e)