→ Insertion

[redacted]

```
Algo SkipInsert(k, v)
  p = SkipSearch(k)
  q = None                    // represents top node in new item tower
  i = -1
  repeat
    i = i+1
    if i ≥ h then
      h = h+1                 // add new lvl to skip list
      t = next(s)
      s = insertAfterAbove(None, s, (-∞, None))   // grow leftmost tower
      insertAfterAbove(s, t, (+∞, None))          // grow rightmost tower
    while above(p) is None
      p = prev(p)             // scan backward
    p = above(p)              // jump up higher lvl
    q = insertAfterAbove(p, q, (k, v))
  until coinFlip() == tails ——→ coinFlip() returns heads or tails w/ probability 1/2
  n = n+1
  return q
```

→ Removal

→ to perform map operation del M[k], begin by executing SkipSearch(k)

→ remove p and all positions above p

→ while removing levels, re-establish links between horizontal neighbors of each removed position