```
1:  function BINARY-SEARCH(A, n, v)
2:          ▷ Initialize the search range
3:          l ← 1                                              ▷ comment comment
                                                               comment did you know i
                                                               cannot write tersely this is a
                                                               long comment that goes on
                                                               forever
4:          r ← n
5:
6:      while l ≤ r do
7:              mid ← floor ($\frac{l+r}{2}$)
8:              if A[mid] < v then
9:                      l ← m + 1
10:             else if A[mid] > v then
11:                     r ← m − 1
12:             else
13:                     return m
14:     return null
```