875. Koko Eating Bananas

Solved ✓

`Medium` 🏷 Topics 🏢 Companies
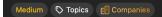
Koko loves to eat bananas. There are `n` piles of bananas, the `i`th pile has `piles[i]` bananas. The guards have gone and will come back in `h` hours.

Koko can decide her bananas-per-hour eating speed of `k`. Each hour, she chooses some pile of bananas and eats `k` bananas from that pile. If the pile has less than `k` bananas, she eats all of them instead and will not eat any more bananas during this hour.

Koko likes to eat slowly but still wants to finish eating all the bananas before the guards return.

Return *the minimum integer* `k` *such that she can eat all the bananas within* `h` *hours*.

Example 1:

```
Input: piles = [3,6,7,11], h = 8
Output: 4
```

Example 2:

```
Python3 ∨   • Auto

1   class Solution:
2       def minEatingSpeed(self, piles: List[int], h: int) -> int:
3
4           def hourNeed(k):
5               res = 0
6               for p in piles:
7                   res += math.ceil(p / k)
8               return res
9
10          # binary search
11          l, r = 1, max(piles)
12          while l < r:
13              mid = l + (r - l) // 2
14              if hourNeed(mid) <= h:
15                  r = mid
16              else:
17                  l = mid + 1
18
19          return l
20
21
```

Accepted 126 / 126 testcases passed

⬤ AndrewC275 submitted at Jun 14, 2025 12:22

📖 Editorial   ✏ Solution

🕐 Runtime   ⓘ   ⚙ Memory

151 ms | Beats **77.95%** 👋   **18.94** MB | Beats **48.59%**

✦ Analyze Complexity

15%

10%

5%

0%
   1ms   32ms   64ms   95ms   126ms   157ms   189ms   220ms

   1ms   32ms   64ms   95ms   126ms   157ms   189ms   220ms