Insertion sort

8273156->8|273156->28|73156->278|3156->2378|156->12378|56->123578|6

->1235678|

Binary search

How to compute mid

1. mid=(left+right)/2(Overflow risk,less complicated)
2. mid=left+(right-left)/2(more reliable, but more complicated)
3. A better way to compute mid (by interpolation(內差))只能是線性

mid = low + (key - arr[low]) \* ((high - low) / (arr[high] - arr[low]))

Linear search

1. O(n)
2. For any unsorted arrays

Binary search

1. O(log(n))
2. For sorted arrays

Hash search

1. O(1)
2. For pre-processed by hash functions

Binary search using multiple keys

1. Stable sort for multi-keys from LSK
2. Search from MSK

Sum of elements in a 2D array

1. Row sum first
2. Column sum first

Row sum is faster due to the continuous memory of elements in the same row.