Linear Search

Linear Search

- iterate through a collection one element at a time to find a target
- time complexity: $O(n)$
- Disadvantages
  - Slow for large datasets
- Advantages
  - Fast for searches of small to medium data sets
  - Does NOT need to be Sorted
  - Useful for data structures that do not have random access (Linked Lists)

Steps:

① loop through one element at a time from left-to-right

② if the target is found, return the index which it was found at

③ if we make it to the end of the list without finding the target, then the target is not in the collection