**ASSIGNMENT SYNTAX:**

def binary\_search(arr, low, high, key):

 The list must be **sorted**.

 Find the **middle element**.

 If the middle is the target, return the index.

 If the target is **less than** the middle, search in the **left half**.

 If the target is **greater than** the middle, search in the **right half**.

mid = (low + high)

if arr[mid] == key:

elif key < arr[mid]: