int linearSearch(int arr[], int n, int target) {

for (int i = 0; i < n; i++) {

if (arr[i] == target) {

return i;

}

}

return -1;

}

int binarySearch(int arr[], int n, int target) {

int left = 0;

int right = n - 1;

while (left <= right) {

int mid = left + (right - left) / 2;

if (arr[mid] == target) {

return mid;

}

if (arr[mid] < target) {

left = mid + 1;

} else {

right = mid - 1;

}

}

return -1;

}

int interpolationSearch(int arr[], int n, int target) {

int low = 0;

int high = n - 1;

while (low <= high && target >= arr[low] && target <= arr[high]) {

if (low == high) {

if (arr[low] == target) {

return low;

}

return -1;

}

int pos = low + ((double)(high - low) / (arr[high] - arr[low]) \* (target - arr[low]));

if (arr[pos] == target) {

return pos;

}

if (arr[pos] < target) {

low = pos + 1;

} else {

high = pos - 1;

}

}

return -1;

}