#include <stdio.h>

int main() {

int n, i, key, low, high, mid, found = 0;

printf("Enter the number of elements in the array: ");

scanf("%d", &n);

int arr[n];

printf("Enter %d elements in sorted order:\n", n);

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

scanf("%d", &arr[i]);

}

printf("Enter the number to search: ");

scanf("%d", &key);

low = 0;

high = n - 1;

while (low <= high) {

mid = (low + high) / 2;

if (arr[mid] == key) {

printf("Element %d found at position %d.\n", key, mid + 1);

found = 1;

break;

}

else if (arr[mid] < key) {

low = mid + 1;

}

else {

high = mid - 1;

}

}

if (!found) {

printf("Element %d not found in the array.\n", key);

}

return 0;

}