package Com.Lession5.LinearDemo;

import java.util.Arrays;

import java.util.Scanner;

public class ExponentialSearchDemo {

public static void main(String[] args) {

int arr[] = { 3,66,3,217, 19 };

int length = arr.length;

System.out.println("Enter key for Exponential search");

Scanner scanner = new Scanner(System.in);

int key = scanner.nextInt();

int outcome = exponentialSearch(arr, length, key);

if(outcome < 0) {

System.out.println("Element not found");

}

else {

System.out.println("Element found at index "+outcome);

}

}

public static int exponentialSearch(int arr[],int length , int key) {

if(arr[0]==key){

return 0;

}

int i=1;

while(i<length && arr[i]<=key){

i=i\*2;

break;

}

return Arrays.binarySearch(arr,i/2,Math.min(i, length), key);

}

}