**package** com;

**import** java.util.Arrays;

**public** **class** exponential {

**static** **int** exponentialSearch(**int** arr[],

**int** n, **int** x)

{

**if** (arr[0] == x)

**return** 0;

**int** i = 1;

**while** (i < n && arr[i] <= x)

i = i\*2;

**return** Arrays.*binarySearch*(arr, i/2,

Math.*min*(i, n-1), x);

}

**public** **static** **void** main(String args[])

{

**int** arr[] = {17,7,2,20,100, 40};

**int** x = 17;

**int** result = *exponentialSearch*(arr,

arr.length, x);

System.***out***.println((result < 0) ?

"Element is not present in array" :

"Element is present at index " +

result);

}

}