

⑨ Find longest subarray whose sum equals target number.

- use sliding window, if sum >= k, increment i, if (sum == k), update start and end indexes, and inc i;

```
void longestSubarraySum(int []a, int K) {  
    int i=0, j=0, start=0, end=0, length=0, sum=0;  
    while(j < a.length && i <= j) {  
        sum += a[j];  
        if(sum > k) { sum -= a[i]; i++ }  
        else if(sum == k && (j-i+1) > length) {  
            length = j-i+1;  
            start = i; end = j;  
            sum -= a[i]; i++;  
        }  
        j++;  
    }  
    s.o.p(start + " " + end);  
}
```

So that we  
can find more subarrays

⑩ Find all duplicates in array where values are 1 to n-1.

- Since values are between 1 to n-1, for each element at a[i], change a[a[i]] = a[a[i]] \* (-1); if it is > 0 else print i.

```
for(int i=0; i < a.length; i++) {  
    if(a[i] < 0) s.o.p(i); if(a[Math.abs(a[i])]) < 0 { s.o.p  
    a[a[i]] = -1 * a[a[i]]; else  
    a[Math.abs(a[i])] = -a[Math.abs(a[i])];  
}
```