

shopping

Problem Statement.

There exists n bags of gold each of which contains b_i golden coins ($1 \leq i \leq n$) Sandra has to collect at least S golden coins but she does not have much time.

so she decided to pick k consecutive bags starting from a random index j ($1 \leq j \leq n - k + 1$).

Help Sandra find the minimum integer k so that whatever index j she chooses it is guaranteed that the sum of coins she will collect ($b_j + \dots + b_{j+k-1}$) will be greater than or equal to S .

if Sandra can never collect more than the sum S print "impossible"

Input.

you will be given as input: n ($1 \leq n \leq 10^5$) the number of bags.

S ($1 \leq S \leq 10^6$) the amount of coins she has to collect.

and n numbers p_i ($0 \leq p_i \leq 10^5$) representing the number of coins in the i -th bag.

Output.

print k if it exists and "impossible" if it doesn't exist.

Examples.

example 1

Input:

```
8 5
1 0 4 5 0 0 2 1
```

Output:

```
5
```

example 2

Input:

```
6 1
1 1 1 1 1 1
```

Output:

```
1
```

example 3

Input:

```
4 10  
3 1 1 2
```

Output:

```
impossible
```