

## ***Minimal Coin Change***



Given a value  $V$ , if we want to make a change for  $V$  cents, and we have an infinite supply of each of  $C = \{ C_1, C_2, \dots, C_n \}$  valued coins, what is the minimum number of coins to make the change?

### **Input**

The first input line will contain an integer  $V$ , representing the total change value to be given. The next line will contain an integer  $n$ , representing the number of available coins for the change. Finally, the last input line will contain  $n$  integers separated by space, each of which representing a coin available value.

### **Output**

Your program must produce a single output line containing the minimum number of coins to make the change.

### **Sample Input**

```
11
4
9 6 5 1
```

### **Sample Output**

```
2
```