

Joined Number

A set of house numbers were formed using number tiles as shown below. During transportation, the numbers got joined. Vivek knows the sum of digits of his house number but do not know the exact house number and the number of digits in it.



Given the joined number 'n' and the sum of house number 'h', write a C++ program to find all possible consequent digits of 'n' whose sum of digits is 'h'. For example, if the joined number 'n' is 7234198523322 and house number 'h' as 17, the answers are 72341, 3419, 98 and 523322

Hint:

This problem can be quickly solved with string in STL. STL is Standard Template Library that has got generic functions, classes and algorithms.

- To use string, add `#include<string>`
- We can create object and array of objects for string
- `length` is a member function of string that gives the number of characters in it
- You can access *i*th character of a string object *s* as *s[i]* – Subscript operator is overloaded
- `substr(i,n)` – will return a substring from position 'i' and of length 'n'
- `stol(s)` – returns long integer of string *s*

Sample Code using String in STL

```
#include<iostream>
```

```
using namespace std;
```

```
#include<string>
```

```
int main()
```

```
{
```

```
string s1,s2;
```

```
int l,pos;
```

```
long int li;
```

Problem Statistics

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Solved By: 0

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```
cin>>s1;

//get length of s1

l=s1.length();

//substring of length 3 from position 2

s2 = s1.substr(2,3);

li = stol(s1);

}
```

Input Format

First line contains the joined number, n

Next line contains the sum of the house number, h

Output Format

Print the consequent digits that may be house number separated by a tab

Theme: Terminal Language Python Font size: 18

```
1
2 n = input()
3 h = int(input())
4 for i in range(len(n)):
5     for j in range(len(n)+1):
6         num = n[i:j]
7         if sum(list(map(int,num)))==h:
8             print(num,end='\t')
```

9

☐ Use custom I/O

Run Code

Save Code

Pause Test

Status:

Success your code has passed all test cases!!