Awesome Twenty!

Kumara is very interested in number systems. One da he saw a bea utiful girl walking lonely in a garden. He wanted to know her name. Therefore he went to the garden and met her. She wa l she was 4th year student of *ABC University*

Thereafter they were close friends. Sumana(that girl) asked Kumara to develop a special calculator using any language.

Calculator Features

- Add any two base 20 numbers and get answer
- Accepts only single input and gives only single output
- Similar to Vigesimal number system
- Use `0123456789ABCDEFGHIJ` as digits

Sumana said she will marry Kumara if he can develop this program. Please help Kumara to reach his goal.

Input Format

String `S` in format `<first value>+<second value>`

Constraints

$3 <= length(S) < 100$

Output Format

Output the summation of `<first value>` and `<second value>`

Sample Input 0

```
AF+F
```

Sample Output 0

```
BA
```

Explanation 0

We can consider values of each element as per below

- `A = 10`
- `F = 15`

Steps

- First we can add `F+F`, answer is `15 + 15 = 30` then we put `A` (for `10`) (carry is `1`)
- Next we will add carry to `A` then `10 + 1 = 11` then we put `B` (for `11`)

Finally we print `BA` as the answer

Contest ends in a day

Submissions: 36
Max Score: 75

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Python 3

```python
def base (a) :
    power = len(a)-1
    sum   = 0
    for x in a :
        sum += check(x)*pow(20,power)
        power = power-1
    return sum

def check(data) :
    if(data == 'A') :
        return 10
    elif(data == 'B') :
        return 11
    elif(data == 'C') :
        return 12
    elif(data == 'D') :
        return 13
    elif(data == 'E') :
        return 14
    elif(data == 'F') :
        return 15
    elif(data == 'G') :
        return 16
    elif(data == 'H') :
        return 17
    elif(data == 'I') :
        return 18
    elif(data == 'J') :
        return 19
    else :
        return int(data)

def convert(dec_digit):
    if dec_digit < 10:
        return str(dec_digit)
    elif dec_digit == 10:
        return "A"
    elif dec_digit == 11:
        return "B"
    elif dec_digit == 12:
        return "C"
    elif dec_digit == 13:
        return "D"
    elif dec_digit == 14:
        return "E"
    elif dec_digit == 15:
        return "F"
    elif dec_digit == 16:
        return "G"
    elif dec_digit == 17:
        return "H"
    elif dec_digit == 18:
        return "I"
```

```
    elif dec_digit == 19:
        return "J"

result = ""

def counter(sum_of_decimals,s):
    if(sum_of_decimals/20!=0):
        s=convert(sum_of_decimals%20)+s
        counter(sum_of_decimals//20,s)
    else :
        global result
        result = s

data = input()
a,b = data.split("+")

sum_of_decimals = base(a)+base(b)

if (sum_of_decimals==0):
    print(sum_of_decimals)

else:
    counter(sum_of_decimals,"")
    print(result)
```

Line: 1 Col: 1

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