

Homework 12

Use Python for-loops to solve the following cryptogram:

SEND
+MORE

MONEY

Each letter stands for a different digit. You can solve this puzzle the way it is intended to be solved, by deduction and some trial and error. For example, the value of M needs to be one, since the sum of two four-digit numbers starts at best with a 1. You need to write a series of nested for loops. To not have the program iterate through all 10^7 possibilities, you can use “continue” to move the execution of the enclosing loop to the next iteration value.

You also should write a function `carry` with a variable number of arguments that calculates the carry of the numbers. For example `carry(9, 8, 7, 6)` should be 3. Here is how my solution starts:

```
def carry(*numbers):
    return sum(numbers)//10

def solve():
    for s in range(1,10):
        for e in range(10):
            if e==s:
                continue
            for n in range(10):
                if n==s or n==e:
                    continue
            for d in range(10):
                if d==e or d==s or d==n:
```