

Program 4

Crypt Arithmetic Problem

AIM :

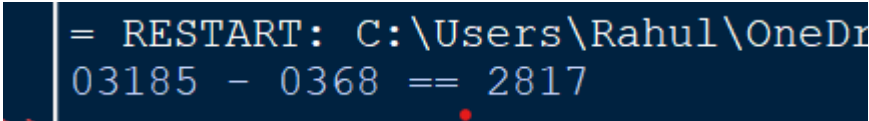
To Create a python program to find a solution to the Crypt Arithmetic Problem.

PROGRAM :

```
import re

def solve(q):
    try:
        n = next(i for i in q if i.isalpha()) # Check if q has alphabetic characters
    except StopIteration:
        return q if eval(re.sub(r'(^([0-9])0+([1-9]+)', r'\1\2', q)) else False
    else:
        for i in (str(i) for i in range(10) if str(i) not in q):
            r = solve(q.replace(n, str(i))) # Replace character with number
            if r:
                return r
        return False

# Driver code
if __name__ == "__main__":
    query = "COUNT - COIN == SNUB"
    r = solve(query)
    print(r) if r else print("No solution found.")
```

OUTPUT:

```
= RESTART: C:\Users\Rahul\OneDr
03185 - 0368 == 2817
```

RESULT:

The Program has successfully been executed.