20.Write the python program for Cript-Arithmetic problem

from itertools import permutations

def solve\_cryptarithmetic():

letters = 'SENDMORY' # Unique letters in the puzzle

digits = range(10)

for perm in permutations(digits, len(letters)):

s, e, n, d, m, o, r, y = perm

# Skip if leading letters are assigned zero

if s == 0 or m == 0:

continue

send = s \* 1000 + e \* 100 + n \* 10 + d

more = m \* 1000 + o \* 100 + r \* 10 + e

money = m \* 10000 + o \* 1000 + n \* 100 + e \* 10 + y

if send + more == money:

print(f"SEND = {send}")

print(f"MORE = {more}")

print(f"MONEY = {money}")

print(f"Mapping: {dict(zip(letters, perm))}")

return

print("No solution found.")

# Run the function

solve\_cryptarithmetic()

OUTPUT:

