

```

1 from typing import List
2
3 N = 6      # 求める桁数 5*(N+1) 桁
4 DEG = 100000 # 桁数の基準
5
6 def main():
7     x = [2, 12345, 99999, 33333, 44444, 55555, 66666]
8     y = [1, 45678, 88888, 90000, 88888, 77777, 66666]
9
10    print("x = ", end="")
11    print_result(x)
12    print("y = ", end="")
13    print_result(y)
14    z = adds(x, y)
15    print("x+y=", end="\t")
16    print_result(z)
17    z = subs(x, y)
18    print("x-y=", end="\t")
19    print_result(z)
20    z = muls(x, 9999)
21    print("x*9999=", end="\t")
22    print_result(z)
23    z = divs(x, 9999)
24    print("x/9999=", end="\t")
25    print_result(z)
26
27
28 def adds(x: List[int], y: List[int], N: int = N, DEG: int = DEG) -> List[int]:
29     # 加算
30     z, up = [0] * len(x), 0
31     for i in range(N, -1, -1):
32         sum_ = x[i] + y[i] + up
33         if sum_ > DEG - 1:
34             z[i] = sum_ - DEG
35             up = 1
36         else:
37             z[i] = sum_
38             up = 0
39     return z
40
41
42 def subs(x: List[int], y: List[int], N: int = N, DEG: int = DEG) -> List[int]:
43     # 減算
44     z, borrow = [0] * len(x), 0
45     for i in range(N, -1, -1):
46         sub = x[i] - y[i] - borrow
47         if sub >= 0:
48             z[i] = sub
49             borrow = 0
50         else:
51             z[i] = DEG + sub
52             borrow = 1
53     return z
54
55
56 def muls(x: List[int], n: int) -> List[int]:
57     global N, DEG
58     # 乗算
59     z, up = [0] * len(x), 0
60     for i in range(N, -1, -1):
61         prod = x[i] * n + up
62         z[i] = prod % DEG
63         up = prod / DEG
64     return z
65
66
67 def divs(x: List[int], n: int) -> List[int]:
68     global N, DEG
69     # 除算
70     z, amari = [0] * len(x), 0
71     for i in range(N+1):
72         bunshi = amari * DEG + x[i]
73         z[i] = bunshi / n
74         amari = bunshi % n
75     return z
76
77
78 def print_result(x: List[int]) -> None:
79     global N
80     for i in range(N+1):
81         print("%05u" % x[i], end=" ")
82     print()
83
84
85 if __name__ == "__main__":
86     main()

```