1.Program to check whether the input numbers make a valid triangle:

n=int(input("enter the value"))

while n>0:

a=int(input("enter the num:"))

b=int(input("enter the num:"))

c=int(input("enter the num:"))

sum=a+b+c

if (sum==180):

print("triangle is valid")

else:

print("triangle not valid")

O/P:

enter the value3

enter the num:150

enter the num:20

enter the num:10

triangle is valid

enter the num:160

enter the num:30

enter the num:10

triangle not valid

2.Program to count of numbers divisible by the given digit:

n = int(input("enter the number of test cases:"))

k = int(input("enter the number to divide each test cases:"))

count = 0

for i in range(0, n):

a = int(input("enter the number to check whether it is divisible by k:"))

if a % k == 0:

count += 1

print(count)

O/P:

enter the number of test cases:3

enter the number to divide each test cases:2

enter the number to check whether it is divisible by k:12

enter the number to check whether it is divisible by k:22

enter the number to check whether it is divisible by k:12

3

3.Program to get the remainder of the division of two numbers:

t = int(input("enter the number of test cases:"))

if 1 <= t <= 1000:

for i in range(0, t):

u = input("enter the value with spaces:")

v = [int(j) for j in u.split()]

if 1 <= v[0] and v[1] <= 10000:

print(v[0] % v[1])

O/P:

enter the number of test cases:2

enter the value with spaces:24 45

24

enter the value with spaces:45 34

11

4.Program to print the count of digit four in the given number:

t = int(input("enter the number of test cases:"))

for j in range(0, t):

n = int(input("enter the number to get the occurrences of digit four:"))

a = [int(i) for i in str(n)]

print(a.count(4))

O/P:

enter the number of test cases:2

enter the number to get the occurrences of digit four:3445

2

enter the number to get the occurrences of digit four:6545

1

5.Program to sum the first and last digit of the given number:

t = int(input("enter the number of test cases:"))

if 1 <= t <= 1000:

for i in range(0, t):

a = int(input("enter the number:"))

if 1 <= a <= 1000000:

v = a % 10

while a >= 10:

a = a//10

print(a + v)

O/P:

enter the number of test cases:2

enter the number:1234

5

enter the number:53446

11