Example:
#write a program to count number of digits of input number
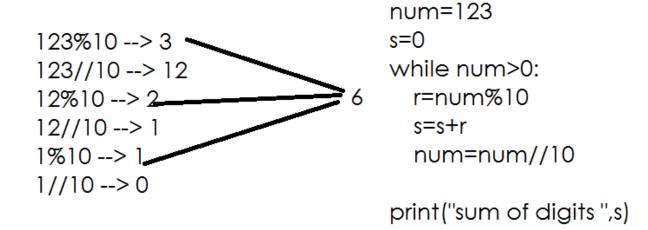#4793 --> 4
#478 --> 3

num=int(input("enter any number"))
c=0
while num>0:
    num=num//10
    c=c+1

print("Count of digits",c)

Output:
enter any number123
Count of digits 3

========== RESTART: F:/python6pmaug/test57.py =========
enter any number478936
Count of digits 6

123%10 --> 3
123//10 --> 12
12%10 --> 2
12//10 --> 1
1%10 --> 1
1//10 --> 0

6

```
num=123
s=0
while num>0:
    r=num%10
    s=s+r
    num=num//10

print("sum of digits ",s)
```

```python
# write a program to print sum of digits of input number
# 123=1+2+3=6

num=int(input("enter any number"))
s=0
while num>0:
    r=num%10
    s=s+r
    num=num//10

print("sum of digits ",s)
```

Output:
enter any number123
sum of digits 6

========== RESTART: F:/python6pmaug/test58.py =========
enter any number103
sum of digits 4

Example:
```python
# write a program to find input number armstrong number or not
#  125 --> 1**3+2**3+5**3

num=int(input("enter any number")) # 371
num1=num # 371

s=0
if num>=100 and num<=999:
    while num>0:
        r=num%10
        s=s+r**3
        num=num//10
    if s==num1:
        print(num1,"is armstrong")
    else:
        print(num1,"is not armstrong")
else:
    print("input 3 digit number")
```

Output
enter any number157
157 is not armstrong

========== RESTART: F:/python6pmaug/test59.py =========
enter any number407
407 is Armstrong

Example:
```
# write a program to reverse number
# 123 -- 321
# 121 -- 121

num=int(input("enter any number")) # 123
num1=num # 123
rev=0
while num>0:
    r=num%10 # 3 2 1
    rev=(rev*10)+r # 3 32 321
    num=num//10 # 12 1 0

print("reverse number is ",rev)
if rev==num1:
    print(num1,"is pal")
else:
    print(num1,"is not pal")
```

Output:
enter any number121
reverse number is 121
121 is pal

========== RESTART: F:/python6pmaug/test60.py =========
enter any number123
reverse number is 321
123 is not pa

Example:
#write a program to print math table of input number

```
# number : 5
# 5x1=5
# 5x2=10
# 5x3=15
# ..
# 5x10=50

num=int(input("enter any number"))
i=1
while i<=10:
    p=num*i
    print(num,"x",i,"=",p)

    i=i+1
```

Output:
```
enter any number2
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
```

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```
T=int(input())
while T>0:
    X,Y=map(int,input().split())
    if X<Y:
        print(Y-X)
    elif X>Y:
        print(X-Y)
    T=T-1
```

I