

```
sample="Python is a case sensitive language"
length= len(sample)
print("part a",length)
print("part b",sample[::-1])
am=sample[10:26]
print("part c",am)
bm=sample.replace("a case sensitive","object oriented")
print("part d",bm)
c=sample.find("a")
print("part e",c)
print("part f",sample.replace(" ", ""))
```

Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

==== RESTART: C:/Users/hk260/AppData/Local/Programs/Python/Python310/,.py ====

part a 35

part b egaugnal evitisnes esac a si nohtyP

part c a case sensitive

part d Python is object oriented language

part e 10

part f Pythonisacasesensitivelanguage

>>>

```
name="Harsh Kumar"
```

```
SID="21107104"
```

```
department="MECHANICAL ENGINEERING"
```

```
CGPA="9.9"
```

```
print("\n \n Hey,",name,"Here!\n" " My SID is ",SID, "\n" "I am from",department, "department and my CGPA is",CGPA)
```

Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: C:/Users/hk260/AppData/Local/Programs/Python/Python310/'.py =====

Hey, Harsh Kumar Here!

My SID is 21107104

I am from MECHANICAL ENGINEERING department and my CGPA is 9.9

>>>

a=56

b=10

```
print("\n \n 3rd Question(a)", a&b)
```

```
print("\n 3rd Question(b)", a|b)
```

```
print("\n 3rd Question(c)", a^b)
```

```
print("\n 3rd Question(d)", a<<2, "and", b<<2)
```

```
print("\n 3rd Question(e)", a>>2, "and", b>>4)
```

Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

==== RESTART: C:/Users/hk260/AppData/Local/Programs/Python/Python310/p.py ====

3rd Question(a) 8

3rd Question(b) 58

3rd Question(c) 50

3rd Question(d) 224 and 40

3rd Question(e) 14 and 0

>>>

```
f=str(input("\n \n Enter a string"))
n="name" in f
if n == True:
    print("yes")
else:
    print("no")
```

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

>>>

```
===== RESTART: C:/Users/hk260/AppData/Local/Programs/Python/Python310/o.py =====
```

```
Enter a string My name is Sophia. I am a humanoid
```

```
yes
```

>>>


```
side_1=int(input("\n \n \n Side a"))
side_2=int(input("\n \n \n Side b"))
side_3=int(input("\n \n \n Side c"))
```

```
while ((side_1+side_2>side_3)&(side_3+side_2>side_1)&(side_1+side_3>side_2)):
    print("yes")
    break
```

```
while ((side_1+side_2==side_3)&(side_2+side_3==side_1)&(side_3+side_1==side_2)):
    print("no")
    break
```

Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

==== RESTART: C:/Users/hk260/AppData/Local/Programs/Python/Python310/w.py ====

Side a 34

Side b45

Side c67

yes

>>>

```
r=int(input("\n \n First Number"))
s=int(input("\n \n Second Number"))
t=format(r,"08b")
u=format(s,"08b")
print("binary of",r,":",t)
print("binary of",s,":",u)
m=0
count=0
while m<8:
    v=int(t[m])
    w=int(u[m])
    if (v !=w):
        count = count+1
    m=m+1
print("Number of bits flipped are" ,count)
```

Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: C:/Users/hk260/AppData/Local/Programs/Python/Python310/i.py =====

First Number56

Second Number345

binary of 56 : 00111000

binary of 345 : 101011001

Number of bits flipped are 3

>>>