In [ ]: 1.Take values of length and breadth of a rectangle from user and check if it is square or not.

In [1]:
```python
l=int(input('enter value of length=\n'))
b=int(input('enter value of breadth=\n'))
if(l==b):
    print('it is a square')
else:
    print('it is not a square')
```

enter value of length=
8
enter value of breadth=
8
it is a square

In [ ]: `2.Take two int values from user and print greatest among them.`

In [2]:
```python
a=int(input('enter a value=\n'))
b=int(input('enter a value=\n'))
if(a>b):
    print('a is greater')
else:
    print('b is greater')
```

```
enter a value=
12
enter a value=
2
a is greater
```

In [ ]: 3.A shop will give discount of 10% if the cost of purchased quantity is more than 1000.

In [3]:
```python
cost=float(input('enter purchased quantity=\n'))
if(cost>1000):
    tcost=float(cost*(1-0.1))
    print('total cost is',tcost)
else:
    print('total cost is',cost)
```

```
enter purchased quantity=
345689
total cost is 311120.10000000003
```

In [ ]: 4.A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years.
Ask user for their salary and year of service and print the net bonus amount.

In [5]:
```python
sal=float(input('enter salary=\n'))
year=int(input('enter years of service=\n'))
if(year>5):
    bonus=float(sal*(1+0.05))
    print('salary with bonus is',bonus)
else:
    print('salary is',sal)
```

```
enter salary=
654321
enter years of service=
25
salary with bonus is 687037.05
```

5.A school has following rules for grading system:
a. Below 25 -F
b. 25 to 45 -E
c. 45 to 50 -D
d. 50 to 60 -C
e. 60 to 80 -B
f. Above 80 -A
Ask user to enter marks and print the corresponding grade.

In [6]:
```python
x=int(input('marks=\n'))
if(x>=80):
    print('A')
elif(60<=x<80):
    print('B')
elif(50<=x<60):
    print('C')
elif(45<=x<50):
    print('D')
elif(25<=x<45):
    print('E')
else:
    print('F')
```

marks=
47
D

In [ ]: 6.Take input of age of 3 people by user and determine oldest and youngest among them.

In [1]:
```python
a=int(input('first person age=\n'))
b=int(input('second person age=\n'))
c=int(input('third person age=\n'))
if(c>a and c>b):
    print('third person is eldest with age',c)
elif(a>b and a>c):
    print('first person is eldest with age',a)
elif(b>a and b>c):
    print('second person is eldest with age',b)
else:
    print('all are equal')
if(c<a and c<b):
    print('third person is youngest with age',c)
elif(a<b and a<c):
    print('first person is youngest with age',a)
elif(b<a and b<c):
    print('second person is youngest with age',b)
```

first person age=
23
second person age=
41
third person age=
54
third person is eldest with age 54
first person is youngest with age 23

In [ ]: 7.Write a program to print absolute vlaue of a number entered by user.

In [2]:
```python
x=int(input('write a number=\n'))
if(x<0):
    a=x*(-1)
    print('its absolute value is',a)
else:
    print('its absolute value is',x)
```

```
write a number=
34
its absolute value is 34
```

In [ ]: 8.A student will not be allowed to sit in exam if his/herattendence is less than 75%.
Take following input from user
Number of classes held
Number of classes attended.
And print
percentage of class attended
Is student is allowed to sit in exam or not.

In [3]:
```python
x=int(input('no. of classes held=\n'))
y=int(input('no. of classes attended=\n'))
z=float((y/x)*100)
print('percentage attendance is',z,'%')
if(z>=75):
    print('student can sit in exam')
else:
    print('student cannot sit in exam')
```

no. of classes held=
3546
no. of classes attended=
3423
percentage attendance is 96.53130287648054 %
student can sit in exam

Activa

student can sit in exam

In [ ]: 9.Modify the above question to allow student to sit if he/she has medical cause.
Ask user if he/she has medical cause or not ('Y' or 'N') and print accordingly.

In [5]:
```python
x=int(input('no. of classes held=\n'))
y=int(input('no. of classes attended=\n'))
z=float((y/x)*100)
print('percentage attendance is',z,'%')
a=input('any medical cause?[Y or N]=\n')
if(z>=75):
    print('student can sit in exam')
elif(a=='Y'):
    print('student can sit in exam')
else:
    print('student cannot sit in exam')
```

no. of classes held=
143
no. of classes attended=
21
percentage attendance is 14.685314685314685 %
any medical cause?[Y or N]=
N
student cannot sit in exam