In [3]:
```
#Question 1
num=int(input("Please enter a number: "))
if num>0:
    print("The given number is +ve.")
else:
    print("The given number is -ve.")
```

```
Please enter a number: 2
The given number is +ve.
```

In [10]:
```
#Question 2
num=int(input("Please enter a number: "))
if num>5:
    print("Hi! I'm above 5.")
else:
    print("Hi! I'm below 5.")
```

```
Please enter a number: 14
Hi! I'm above 5.
```

In [27]:
```
#Question 3
marks=int(input("Please enter your marks: "))
if marks<33:
    print("You have failed the test.")
elif marks>=33 and marks<60:
    print("You have passed the test but score is not good.")
elif marks>60 and marks<80:
    print("You have scored well in the test.")
elif marks>80:
    print("You have got some good skills in this subject!")
else:
    print("You have passed the test.")
```

```
Please enter your marks: 100
You have got some good skills in this subject!
```

In [2]:
```
#Question 4
temprature=float(input("Please enter the outside temperature: "))
if temprature<5:
    print("It's super cold out there.")
elif temprature>5 and temprature<15:
    print("It's little bit cold outside.")
elif temprature>15 and temprature<25:
    print("Weather is nice outside.")
elif temprature>25 and temprature<35:
    print("Weather is a bit hot out there.")
else:
    print("It's super hot!")
```

```
Please enter the outside temperature: 14.2
It's little bit cold outside.
```

In [22]:
```
#Question 5
num=int(input("Please enter a number: "))
if num%5==0:
    print("I'm a multiple of 5.")
else:
    print("I'm not a multiple of 5.")
```

```
Please enter a number: 14
I'm not a multiple of 5.
```

In [20]:
```
#Question 6
num=int(input("Please enter a number: "))
mod=num%2
if mod>0:
    print("No")
else:
    print("Yes")
#Yes=Even
#No=Odd
```

```
Please enter a number: 14
Yes
```

In [25]:
```
#Question 7
num=int(input("Please enter a number: "))
if num%5==0 and num%7==0:
    print("I'm divisible by both 5 and 7.")
else:
    print("I'm not divisible by both 5 and 7.")
```

```
Please enter a number: 70
I'm divisible by both 5 and 7.
```

In [5]:
```
#Question 8
a=int(input("a="))
b=int(input("b="))
c=int(input("c="))
if a<b:
    print("b is the largest number")
elif b<c:
    print("c is the largest number")
else:
    print("a is the largest number")
```

```
a=14
b=2
c=7
c is the largest number
```

In [13]:
```
#Question 9
num=int(input("Enter a number: "))
if num%5==0 and num%7==0:
    print("The number is divisible by both 5 and 7.")
else:
    print("The number is divisible by 5 but not by 7.")
```

```
Enter a number: 34
The number is divisible by 5 but not by 7.
```

In [17]:
```python
#Question 10
num=int(input("Enter a number: "))
if num%5==0 or num%7==0:
    print("The number is divisible either by 5 or by 7.")
else:
    print("The number is not divisible either by 5 or by 7 or both.")
```

```
Enter a number: 25
The number is divisible either by 5 or by 7.
```

In [2]:
```python
#Question 11
light=str(input("What is color of light? "))
if light=="Red":
    print("Please turn off your engine.")
elif light=="Yellow":
    print("Hey, please be ready to go.")
else:
    print("You are clear to go ahead.")
```

```
What is color of light? Red
Please turn off your engine.
```

In [6]:
```
#Question 12
import cmath
a=int(input("Cofficient of a="))
b=int(input("Cofficient of b="))
c=int(input("Cofficient of c="))

#Finding discriminant
d=(b**2)-(4*a*c)

#Finding roots
root1=(-b+cmath.sqrt(d))/(2*a)
root2=(-b-cmath.sqrt(d))/(2*a)

print(root1, root2)
```

```
Cofficient of a=1
Cofficient of b=6
Cofficient of c=5
(-1+0j) (-5+0j)
```

In [4]:
```
#Question 13
weather=str(input("Please enter outside weather: "))
if weather=="Rainy":
    print("Let's not go outside today.")
elif weather=="Sunny":
    print("Hey, let's go for swimming.")
if weather=="Cloudy":
    print("Hey! Let's play outside, weather is cool.")
```

```
Please enter outside weather: Cloudy
Hey! Let's play outside, weather is cool.
```

In [2]:
```
#Question 14
True or True and False
```

Out[2]:
```
True
```

In [4]:
```
#Question 15
True and False or True
```

Out[4]: True

In [5]:
```
#Question 16
not False and False
```

Out[5]: False

In [6]:
```
#Question 17
True and True and (not False)
```

Out[6]: True

In [7]:
```
#Question 18
True and True or (not False)
```

Out[7]: True

In [8]:
```
#Question 19
(True and False) and (not False) or True
```

Out[8]: True

In [9]:
```
#Question 20
(True and False) and ((not False) or True)
```

Out[9]: False