

▼ Membership Operators

in

not in

```
val1 = 'p'
val2 = 'python'
print(val1 in val2)
```

True

```
print('p' in 'python')
```

True

```
print( 1 in 10)
```

```
-----
TypeError                                Traceback (most recent call last)
<ipython-input-3-a873c738f4ae> in <module>
----> 1 print( 1 in 10)
```

TypeError: argument of type 'int' is not iterable

SEARCH STACK OVERFLOW

```
print(1 in 'python')
```

```
-----
TypeError                                Traceback (most recent call last)
<ipython-input-4-7c6225ecb728> in <module>
----> 1 print(1 in 'python')
```

TypeError: 'in <string>' requires string as left operand, not int

SEARCH STACK OVERFLOW

```
print('h' not in 'welcome')
```

True

```
print('welcome' in 'welcome')
```

True

```
print('w' in 'welcome')
```

True

▼ Identity Operators

is

is not

```
s1 = 'python'
s2 = s1.lower()
```

```
print(s1, id(s1))  
python 139695536122896  
print(s2, id(s2))  
python 139695183201464
```

```
print(s1 == s2)
```

True

```
print(s1 is s2)
```

False

```
s1 = 'hyderabad'  
s2 = s1  
print(s1, id(s1))  
print(s2, id(s2))
```

hyderabad 139695260142896
hyderabad 139695260142896

```
print(s1 == s2)
```

True

```
print(s1 is s2)
```

True

```
print(s1 is not s2)
```

False

▼ Logical Operators

or

and

not

```
print(True or True)
```

True

```
print(True or False)
```

True

```
print(False or True)
```

True

```
print(False or False)
```

False

```
print(10 or True)
```

10

```
print(10 or 0)
```

10

```
print(True or False)
```

True

```
print(-100 or 100)
```

-100

```
print(False or None)
```

None

```
print(False or 10)
```

10

```
print(False or -0.39)
```

-0.39

```
print(0 or None)
```

None

```
print(True and True)
```

True

```
print(True and False)
```

False

```
print(False and True)
```

False

```
print(False and False)
```

False

```
print(10 and 20)
```

20

```
print(20 and False)
```

False

```
print(0 and None)
```

0

```
print('welcome' and 'thank you')
```

thank you

```
print(not True)
```

False

```
print(not False)
```

True

```
print(not 100)
```

False

```
print(not None)
```

True

```
print(not -105)
```

False

```
print(162 and 'sai' or 'python' or 0.2)
```

sai

```
print()
```

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