Name: Zahoor Ali

Roll No: 456643 Arithmetic assignment operators

AI BATCH (9)

```
Python 3.13.5 (tags/v3.13.5:6cb20a2, Jun 11 2025, 16:15:46) [MSC v.1943 64 bit
(AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
>>> y = 20
>>> y += 15 \# same as y = y + 15
>>> print(y)
35
>>> y = 50
>>> y -=25 \# same as y = y - 25
>>> print(y)
25
>>> ye = 2
>>> ye *= 5 # same as ye = ye * 5
>>> print(ye)
10
>>> yc = 5
\Rightarrow yc /= 2 # same as yc = yc / 2
>>> print(yc)
2.5
>>> yd = 15
>>> yd %= 20 # same as yd = yd % 20
>>> print(yd)
15
>>> ya = 50
>>> ya **= 3 # same as ya = ya ** 3
>>> print(ya)
125000
>>> xy = 2
>>> xy //= 4 \# same as xy = xy // 4
>>> print(xy)
```

Comparison Operators

```
Python 3.13.5 (tags/v3.13.5:6cb20a2, Jun 11 2025, 16:15:46) [MSC v.1943 64 bit
(AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> x = 4
>>> y = 5
>>> x == y
False
>>> a = 10
>>> y = 20
>>> a != y
True
>>> c = 50
>>> d = 10
>>> c > d
True
>>> e = 100
>>> f = 75
>>> e < f
False
>>> r = 35
>>> e = 45
>>> e >= r
True
>>> h = "zahoor"
>>> k = "ali"
>>> h <= k
False
```

Logical Operators

```
Python 3.13.5 (tags/v3.13.5:6cb20a2, Jun 11 2025, 16:15:46) [MSC v.1943 64 bit
(AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
>>> x = 3
>>> y = 4
\Rightarrow print(x < 3 and y > 4)
False
>>> a = 9
>>> b = 11
>>> print(a > 9 or b < 11)
False
>>> d = 20
>>> print(not(d > 20)
... print(not(d < 20)
SyntaxError: '(' was never closed
>>> print(d > 20 )
. . .
False
```

Membership Operators

```
Python 3.13.5 (tags/v3.13.5:6cb20a2, Jun 11 2025, 16:15:46) [MSC v.1943 64 bit
(AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> A = 25 , 20 , 35 , 40
>>> print("20 is in the list")
20 is in the list
>>> print("50 is not the list")
50 is not the list
>>>
>>> print("50 is not the list")
50 is not the list
>>>
>>> print("50 is not the list")
50 is not the list
>>> print("100 is in the list")
100 is in the list
```

Identity Operators

```
Python 3.13.5 (tags/v3.13.5:6cb20a2, Jun 11 2025, 16:15:46) [MSC v.1943 64 bit
(AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> A = [1 , 2 , 5]
>>> B = "A"
>>> S = [1 , 2 , 5]
>>> print(id(A))
2250847816256
>>> print(id(B))
140716686129632
>>> print(id(S))
2250803404992
>>>
>>> A is S
False
>>> B is A
False
>>> B is A
False
>>> B == A
False
```