

Topic Name: Operators

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Date of Submission: 08-01-2025

Approved by: -----

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1. Given the following code:

`x = 10`

`y = 5`

`z = (x - y) * (x + y) / x`

ANSWER: C

2. Which of the following statements is correct about z?

- A) z will always be an integer for any values of x and y.
- B) z will be a float because of implicit type conversion in division.
- C) z will be a float only if x or y is a float.
- D) z will raise an error because of operator precedence.

Answer: B

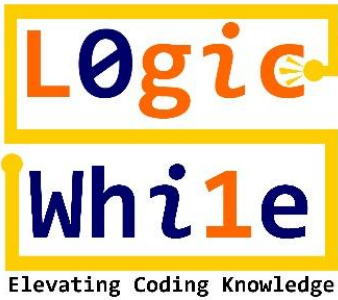
3. Select the correct result of the following expression `(12 >> 2) & (9 | 3) ^ (15 % 4)`

- A) 0
- B) 3
- C) 13
- D) 2

ANSWER: A

4. What does the following Python code print?

`x, y, z = 3, 12, 2`



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```
if x > y or y % 4 == 0:
```

```
    z = y * x
```

```
    if z % 3 == 0:
```

```
        z -= x
```

```
    else:
```

```
        z += x
```

```
print(z)
```

A) 20

B) 32

C) 33

D) 21

ANSWER: C

5. What will be the output of the following code?

```
m=12
```

```
d=6
```

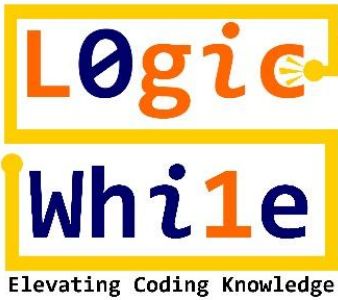
```
result = ((m & d) ^ (~ d | m)) & (m | d)
```

```
print(result)
```

A) 9

B) 1

C) 5



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D) 8

ANSWER: D

6. Select the correct result of the following expression $(8 \gg 3) + (4 \& 2) | 5 \wedge 4$

A) 1

B) 3

C) 4

D) 2

ANSWER: A

7. True or False: The expression $4 + 3 * 2 ** 3 / 2$ evaluates to 16.0.

A) True

B) False

C) None

D) Error

ANSWER: A

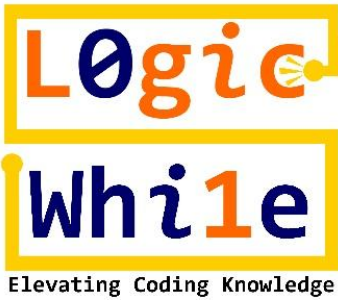
8. What will be the value of X after this operation?

x = 120

x += x << 3

A) 850

B) 960



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C) 1080

D) 1250

ANSWER: C

9. What happens when you perform: `print (2 ** 3 ** 1)`?

A) Prints 64

B) Prints 256

C) Prints 8

D) Raises an error

Answer: C

10. What's the output?

`p = True`

`d = False`

`s = True`

`print (p + d + s)`

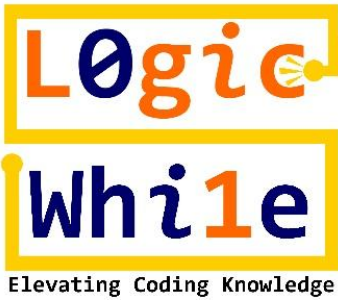
A) True

B) Error

C) 2

D) False

Answer: C



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11. What will be the result of the following code?

```
print (5 + 3 < 10 and 9 * 3 ==26)
```

- A) True
- B) False
- C) Syntax Error
- D) Type Error

Answer: B

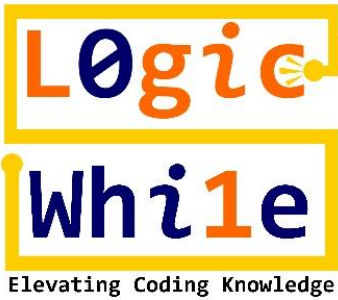
12. Which operator has the highest precedence in Python?

- A) + (Addition)
- B) and (Logical AND)
- C) ** (Exponentiation)
- D) = (Assignment)

Answer: C

13. Evaluate the following expression: **8 + 2 * 2 ** 2.**

- A) 16
- B) 20
- C) 18
- D) 22



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Answer: A

14. What will be the result of the following code?

```
print (2 in [1, 2,3, 5] and 10 not in (5, 10, 15))
```

- A) True
- B) False
- C) Syntax Error
- D) Type Error

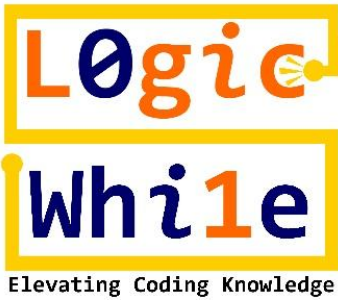
Answer: B

15. What does the following code evaluate to?

```
l = "logic while"  
w = "logic while"  
print (l is w)
```

- A) True
- B) False
- C) Syntax Error
- D) Type Error

Answer: A



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16. What will be the output of code snippet?

```
numbers = [10, 25, 32, 49, 6, 46]
```

```
result = 0
```

```
for n in numbers:
```

```
    if n % 4 == 0 and n > 30:
```

```
        result = n
```

```
        break
```

```
print(result)
```

A) 32

B) 10

C) 36

D) 46

Answer: A

17. Predict the result of the following Python program:

```
data = (16, 22, 34, 45, 50)
```

```
result = None
```

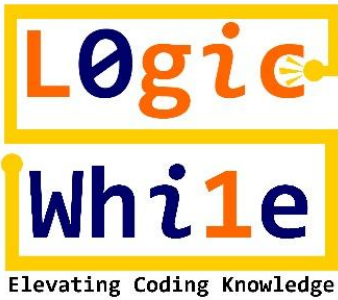
```
for value in data:
```

```
    if value % 5 == 0 and value % 3 == 0:
```

```
        result = value
```

```
        break
```

```
print(result)
```



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- A) 22
- B) 34
- C) 45
- D) None

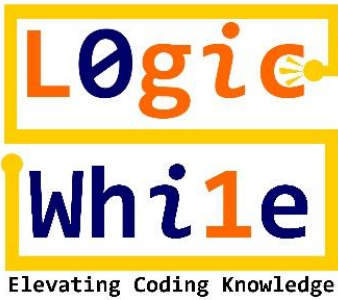
Answer: C

18. Identify the output of the following Python program:

```
numbers = (49, 29, 16, 25, 36)
result = 0
for num in numbers:
    if num % 4 == 0 and num > 10:
        result = num
        break
print(result)
```

- A) 49
- B) 29
- C) 16
- D) 36

Answer: 16



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19. The expression $(5 > 3)$ and $(2 < 2)$ evaluates to

- A) True
- B) False
- C) None
- D) Error

Answer: B

20. In Python, **not** has a higher precedence than **and**.

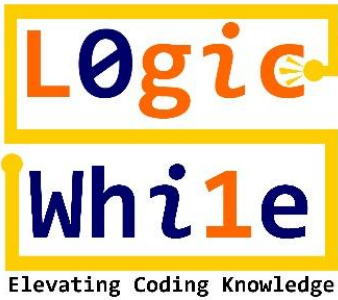
- A) True
- B) False
- C) None
- D) Error

Answer: A

21. The `//` operator in Python is used to perform floating-point division.

- A) True
- B) False
- C) Error
- D) None

Answer: B



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22. Tuples are immutable, so the += operator cannot be used to append elements to a tuple.

- A) True
- B) False
- C) None
- D) Error

Answer: A

23. Which operators in Python are used for comparison?

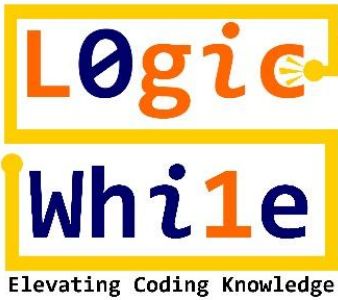
- A) <, >, <=, >=
- B) ==, !=, =
- C) ==, !=, <, >, <=, >=
- D) <, >, ==, =

Answer: C

24. Which logical operators are supported in Python?

- A) and, or, not
- B) and, or, not, xor
- C) not, or, nor
- D) and, or, not, but

Answer: A



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25. The ____ operator is used in Python to check whether two variables point to the same object in memory.

- A) and
- B) is
- C) or
- D) in

Answer: B

26. The **not** operator in Python can be used with any data type and always returns a **boolean** value.

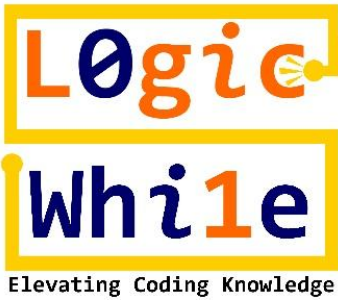
- A) True
- B) False
- C) None
- D) Error

Answer: A

27. What will be the value of **result** after the following code executes?

```
a, b, c = 10, 20, 30  
result = a < b and b > c or c > a  
print(result)
```

- A) True



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B) False

C) None

D) Error

Answer: A

28. What will the following code output?

```
x = 5 + 10 * 2 // 3 - 4
```

```
print(x)
```

A) 9

B) 8

C) 7

D) 0

Answer: C

29. What will be the result of the following Python expression?

```
x = 5
```

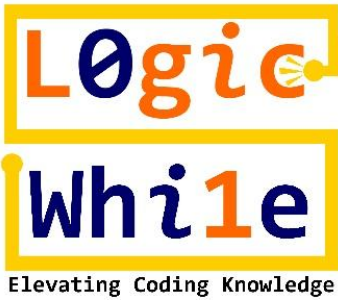
```
y = 4
```

```
z = 5
```

```
result = (x + y) * z // y % x
```

A) 2

B) 1



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C) 0

D) 3

Answer: B

30. What will the following code print?

```
x = [1, 2, 8]
y = [1, 2, 8]
print (x is y)
```

A) True

B) False

C) None

D) Error

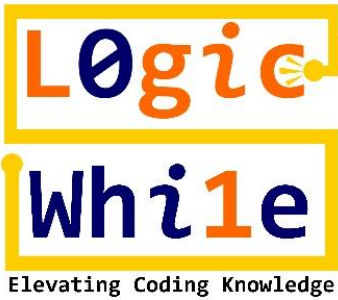
Answer: False

31. What will the following code output?

```
x = 15
x *= 2 + 13
print(x)
```

A) 512

B) 109



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C) 200

D) 225

Answer: D

32. What will be the value of result after running the following code?

```
a = 10
```

```
b = 20
```

```
result = 0
```

```
for i in range (5):
```

```
    if a < b and i % 2 == 0:
```

```
        result += i
```

```
print(result)
```

A) 4

B) 6

C) 8

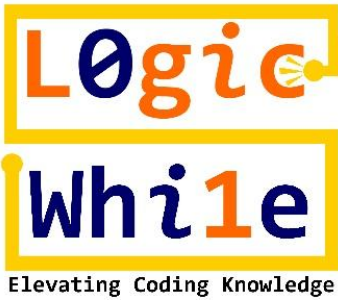
D) 12

Answer: B

33. What will be the output of the following code?

```
result = 0
```

```
for i in range (1, 6):
```



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```
if i % 2 == 0:  
    result += i * 4  
print(result)
```

- A) 18
- B) 23
- C) 12
- D) 24

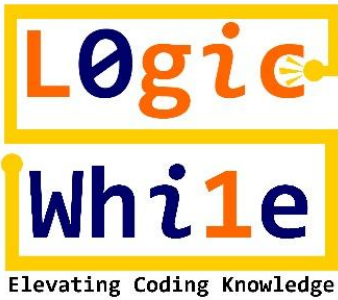
Answer: D

34. What will be the value of **total** after running the following code?

```
total = 0  
for i in range (3, 9):  
    if i % 2 != 0:  
        total += i * 2  
print(total)
```

- A) 48
- B) 19
- C) 30
- D) 20

Answer: C



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35. What will be the output of the following code?

```
x = 2
y = 10
result = 0
for i in range (x, y, 3):
    if i % 2 == 0:
        result += i
print(result)
```

- A) 12
- B) 11
- C) 14
- D) 10

Answer: D