Python WAP Practice: Operators

1) Arithmetic Operators

Q1. Write a program to calculate the area and perimeter of a rectangle.

Hint: Area = length \times width, Perimeter = 2 \times (length + width)

Q2. Write a program to calculate the square and cube of a number.

Hint: Use num ** 2 and num ** 3

Q3. Write a program to take two numbers and print quotient and remainder.

Hint: Use // for quotient and % for remainder

Q4. Write a program to convert temperature from Celsius to Fahrenheit.

Hint: $F = (C \times 9/5) + 32$

2) Assignment Operators

- Q5. Write a program to update your bank balance after multiple transactions using += and -=.
- Q6. Write a program to compute power using **= operator.
- Q7. Create a number and keep doubling it using *= operator in a loop for 5 times.

3) Comparison Operators

Q8. Write a program to check if you're eligible to vote.

Hint: Check if age >= 18

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Q9. Write a program to compare marks of two students and print who scored more.

Q10. Write a program to check if a number is negative, positive or zero.

4) Logical Operators

Q11. Write a program to check if a person is eligible to apply for a driving license.

Hint: Use `and` to check if age >= 18 and has ID proof

Q12. Write a program to check if a number is either even or divisible by 5.

Hint: Use `or` with % operator

Q13. Write a program to toggle a boolean variable.

Hint: Use `not` operator

Optional Practice: Identity, Membership, Bitwise Operators

Q14. Identity: Write a program to check if two variables point to the same object.

Hint: Use `is` operator

Q15. Membership: Write a program to check if a letter is present in a string.

Hint: Use `in` keyword

Q16. Bitwise: Write a program to perform bitwise AND, OR and XOR of two numbers.

Hint: Use &, |, ^