

“Pseudocode”

1. Get user input for two numbers (num1 and num2) and an operation (operation).
2. Define functions for each operation:
   * addition: Add num1 and num2.
   * subtraction: Subtract num2 from num1.
   * multiplication: Multiply num1 and num2.
   * division: Divide num1 by num2. If num2 is zero, display an error message.
   * modulus: Calculate the remainder of the division of num1 by num2. If num2 is zero, display an error message.
   * compare: Compare num1 and num2. If num1 is greater, display "num1 is Greater". If num2 is greater, display "num2 is Greater". If both numbers are equal, display "Equal".
   * and\_or: Check if both numbers are negative, both numbers are positive, or one number is positive and the other is negative. Display the appropriate message.
   * logical\_xor: Perform the logical XOR operation on num1 and num2.
   * factorial: Calculate the factorial of num1 and num2. If num1 or num2 is negative, display an error message.
3. Perform the selected operation and display the result:
   * If the operation is '+', perform addition.
   * If the operation is '-', perform subtraction.
   * If the operation is '\*', perform multiplication.
   * If the operation is '/', perform division.
   * If the operation is '%', perform modulus.
   * If the operation is 'compare', perform comparison.
   * If the operation is 'aor', perform logical OR operation.
   * If the operation is 'xor', perform logical XOR operation.
   * If the operation is 'factorial', calculate the factorial of num1 and num2.
   * If the operation is invalid, display an error message.

**Here is the pseudocode for the code:**

function main()

input num1, num2, operation

if operation is valid

perform operation and display result

else

display error message

end function

function addition(num1, num2)

return num1 + num2

end function

function subtraction(num1, num2)

return num1 - num2

end function

function multiplication(num1, num2)

return num1 \* num2

end function

function division(num1, num2)

if num2 is not zero

return num1 / num2

else

return "Error: Division by zero"

end function

function modulus(num1, num2)

if num2 is not zero

return num1 % num2

else

return "Error: Modulus by zero"

end function

function compare(num1, num2)

if num1 > num2

return num1, "is Greater"

elif num1 < num2

return num2, "is Greater"

else

return "Equal"

end function

function and\_or(num1, num2)

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