1. **Sum of digits**

**Code:**

#include <stdio.h>

#include <stdlib.h> // For abs function

int main() {

int num, sum = 0, digit, i = 0;

int digits[10]; // Array to store individual digits

// Input number from user

printf("Enter a number: ");

scanf("%d", &num);

// Take the absolute value of the number

num = abs(num);

// Calculate sum of digits and store them in the array

while (num != 0) {

digit = num % 10; // Get the last digit

sum += digit; // Add the digit to sum

digits[i++] = digit; // Store the digit in the array

num /= 10; // Remove the last digit from the number

}

// Display the sum of digits in the desired format

printf("Sum of digits = ");

for (int j = i - 1; j >= 0; j--) {

printf("%d", digits[j]); // Print the digit

if (j != 0) {

printf("+");

} else {

printf("=");

}

}

printf("%d\n", sum); // Print the sum

return 0;

}

**Output:**

Enter a number: -856

Sum of digits = 8+5+6=19

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Process exited after 6.003 seconds with return value 0

Press any key to continue . . .

