**NUMBER ONE**

***Pseudo Code : Calculate Profit***

1. Prompt the user to enter the cost price.

2. Read and store the cost price as 'costPrice'.

3. Prompt the user to enter the selling price.

4. Read and store the selling price as 'sellingPrice'.

5. Calculate the profit as 'profit' = 'sellingPrice' - 'costPrice'.

6. If 'profit' > 0, then

7. Display "You made a profit of UGX 'profit'".

Else if 'profit' < 0, then

8. Display "You incurred a loss of UGX (-'profit')".

Else

9. Display "You broke even. There is no profit or loss."

10. End.

***Flow Chart***

Enter cost price

Read cost Price

Enter selling price

Read selling Price

***C code***

#include <stdio.h>

int main() {

float costPrice, sellingPrice, profit;

// Input cost price and selling price from the user

printf("Enter the cost price: ");

scanf("%f", &costPrice);

printf("Enter the selling price: ");

scanf("%f", &sellingPrice);

// Calculate profit

profit = sellingPrice - costPrice;

// Check if there's profit or loss

if (profit > 0) {

printf("You made a profit of $%.2f\n", profit);

} else if (profit < 0) {

printf("You incurred a loss of $%.2f\n", -profit);

} else {

printf("You broke even. There is no profit or loss.\n");

}

return 0;

}

**NUMBER TWO: Calculate Sum, Average, Difference, and Product**

***Pseudocode***

1. Prompt the user to enter the first integer.

2. Read and store the first integer as 'num1'.

3. Prompt the user to enter the second integer.

4. Read and store the second integer as 'num2'.

5. Calculate the sum as 'sum' = 'num1' + 'num2'.

6. Calculate the average as 'average' = ('num1' + 'num2') / 2.

7. Calculate the difference as 'difference' = 'num1' - 'num2'.

8. Calculate the product as 'product' = 'num1' \* 'num2'.

9. Display "Sum: 'sum'".

10. Display "Average: 'average'".

11. Display "Difference: 'difference'".

12. Display "Product: 'product'".

13. End.

***C code***

#include <stdio.h>

int main() {

int num1, num2;

float sum, average, difference, product;

// Input two integer values from the user

printf("Enter the first integer: ");

scanf("%d", &num1);

printf("Enter the second integer: ");

scanf("%d", &num2);

// Calculate the sum

sum = num1 + num2;

// Calculate the average

average = (float)(num1 + num2) / 2;

// Calculate the difference

difference = num1 - num2;

// Calculate the product

product = num1 \* num2;

// Display the results

printf("Sum: %d\n", (int)sum);

printf("Average: %.2f\n", average);

printf("Difference: %d\n", (int)difference);

printf("Product: %d\n", (int)product);

return 0;

}