Week 2-1

Operators and Expressions, Managing Input and Output Operations

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Attempt 1

Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
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Duration	65 days 2 hours

Problem 1:

Many people think about their height in feet and inches, even in some countries that primarily use the metric system. Write a program that reads a number of feet from the user, followed by a number of inches. Once these values are read, your program should compute and display the equivalent number of centimeters.

Hint:

One foot is 12 inches.

One inch is 2.54 centimeters.

Input Format

First line,read the number of feet.

Second line, read the number of inches.

Output Format

In one line print the height in centimeters.

Note: All of the values should be displayed using two decimal places.

Sample Input 1

5 6

Sample Output 1

167.64

Code:

```c
#include <stdio.h>
int main()
{
    int feet,inches;
    float centimeters;
    scanf("%d",&feet);
    scanf("%d",&inches);
    centimeters = (feet*12 + inches)*2.54;
    printf("%.2f\n",centimeters);
    return 0;

}
```

OUTPUT:

	Input	Expected	Got	
✓	5 6	167.64	167.64	✓

Passed all tests! ✓

Problem 2:

Create a program that reads two integers, a and b, from the user. Your program should compute and display:

- The sum of a and b
- The difference when b is subtracted from a
- The product of a and b
- The quotient when a is divided by b
- The remainder when a is divided by b

Input Format

First line, read the first number.

Second line, read the second number.

Output Format

First line, print the sum of a and b

Second line, print the difference when b is subtracted from a

Third line, print the product of a and b

Fourth line, print the quotient when a is divided by b

Fifth line, print the remainder when a is divided by b

Sample Input

1 100 6

Sample Output

106 94 600 16 4

Code:

```c
#include <stdio.h>
int main()
{
    int a,b;
    int sum,difference,product,quotient,remainder;
    scanf("%d",&a);
    scanf("%d",&b);
    sum = a + b;
    difference = a - b;
    product = a * b;
    quotient = a / b;
    remainder = a % b;
    printf("%d\n",sum);
    printf("%d\n",difference);
    printf("%d\n",product);
    printf("%d\n",quotient);
    printf("%d",remainder);
    return 0;

}
```

OUTPUT:

	Input	Expected	Got	
✓	100 6	106 94 600 16 4	106 94 600 16 4	✓

Passed all tests! ✓

Problem 3:

A bakery sells loaves of bread for $3.49 each. Day old bread is discounted by 60 percent. Write a program that begins by reading the number of loaves of day old bread being purchased from the user. Then your program should display the regular price for the bread, the discount because it is a day old, and the total price. Each of these amounts should be displayed on its own line with an appropriate label. All of the values should be displayed using two decimal places.

Input Format

Read the number of day old loaves.

Output Format

First line, print Regular price: price

Second line, print Discount: discount

Third line, print Total: total

Note: All of the values should be displayed using two decimal places.

Sample Input 1

10

Sample Output 1

Regular price: 34.90

Discount: 20.94

Total: 13.96

Code:

```c
#include <stdio.h>
int main()
{
    float a = 3.49,R,D,T;
    int day;
    scanf("%d",&day);
    R = a * day;
    D = 0.6 * a * day;
    T = R - D;
    printf("Regular price: %.2f\nDiscount: %.2f\nTotal: %.2f\n",R,D,T);
    return 0;



}
```

Output:

	Input	Expected	Got	
✓	10	Regular price: 34.90 Discount: 20.94 Total: 13.96	Regular price: 34.90 Discount: 20.94 Total: 13.96	✓

Passed all tests! ✓