

## ASSIGNMENT QUESTIONS 2.08.2025

### 1. Write a C program to add two integers.

- Two integers (a, b)
- **Process:**  
Add the two integers  $\rightarrow$  sum = a + b
- **Output:**  
Sum of the two integers

<pre>#include &lt;stdio.h&gt; void main() {     int num1, num2, sum;     scanf("%d%d", &amp;num1, &amp;num2);     sum = num1 + num2;     printf("Sum = %d\n", sum); }</pre>	STDIN 2 Output: Sum = 7
---	----------------------------------

### 2. Write a program to swap two numbers using a temporary variable.

- ? **Input:** The user enters two integer values, a and b.
- ? **Process:** The values of a and b are swapped using a temporary variable temp.
- ? **Output:** The program displays the new values of a and b after swapping.

<pre>#include &lt;stdio.h&gt; void main() {     int a, b, temp;     scanf("%d%d", &amp;a, &amp;b);     temp = a;     a = b;     b = temp;     printf("After swapping:\n");     printf("First number = %d\n", a);     printf("Second number = %d\n", b); }</pre>	STDIN 2 Output: After swapping: First number = 7 Second number = 2
---	---

## ASSIGNMENT QUESTIONS 2.08.2025

3. Write a program to swap two numbers without using a temporary variable.

🔗 **Input:** Read two integers a and b from the user.

🔗 **Process:** Swap the values using arithmetic operations:

- $a = a + b;$
- $b = a - b;$
- $a = a - b;$

🔗 **Output:** Display the values of a and b after swapping.

```
1 #include <stdio.h>
2
3 void main()
4 {
5     int a, b;
6     scanf("%d%d", &a,&b);
7     a = a + b;
8     b = a - b;
9     a = a - b;
10
11     printf("After swapping:\n");
12     printf("First number = %d\n", a);
13     printf("Second number = %d\n", b);
14 }
15 }
```

stdin

3  
4

Output:

After swapping:  
First number = 4  
Second number = 3

## ASSIGNMENT QUESTIONS 2.08.2025

### 4. Write a program to find the ASCII value of a character.

- **Input:** Read a single character from the user.
- **Process:** Convert the character to its corresponding ASCII value (every character in C has an integer ASCII value).
- **Output:** Display the ASCII value of the entered character.

```
#include <stdio.h>
void main()
{
    char ch;
    scanf("%c", &ch);
    printf("The ASCII value of '%c' is %d\n", ch, ch);
}
```

stdin

p

Output:

The ASCII value of '  
' is 10

ctrl + enter

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

- ❓ **Input:** The user enters two characters together (e.g., a and b) in a single scanf.
- ❓ **Process:** Each character is automatically converted to its corresponding ASCII value using the %d format in printf.
- ❓ **Output:** The program displays the ASCII value of each entered character.

```
#include <stdio.h>
void main()
{
    char ch;
    scanf("%c", &ch);
    printf("The ASCII value of '%c' is %d\n", ch, ch);
}
```

stdin

p

Output:

The ASCII value of '  
' is 10

ctrl + enter

## ASSIGNMENT QUESTIONS 2.08.2025

### 6. Write a program to compute the simple interest.

**Input:** Read three float values: principal amount (p), time (t in years), and rate of interest (r).

**Process:** Calculate simple interest using the formula:

$$\text{Simple Interest} = (p \times t \times r) / 100$$

**Output:** Display the calculated simple interest value.

```
Main.c 43shs4ahd AI
1 #include <stdio.h>
2
3 int main()
4 {
5     float p, t, r, si;
6     scanf("%f%f%f", &p, &t, &r);
7     si = (p * t * r) / 100;
8     printf("Simple Interest = %.2f\n", si);
9 }
```

77.9  
3.3  
7.99

Output:  
Simple Interest = 20.54

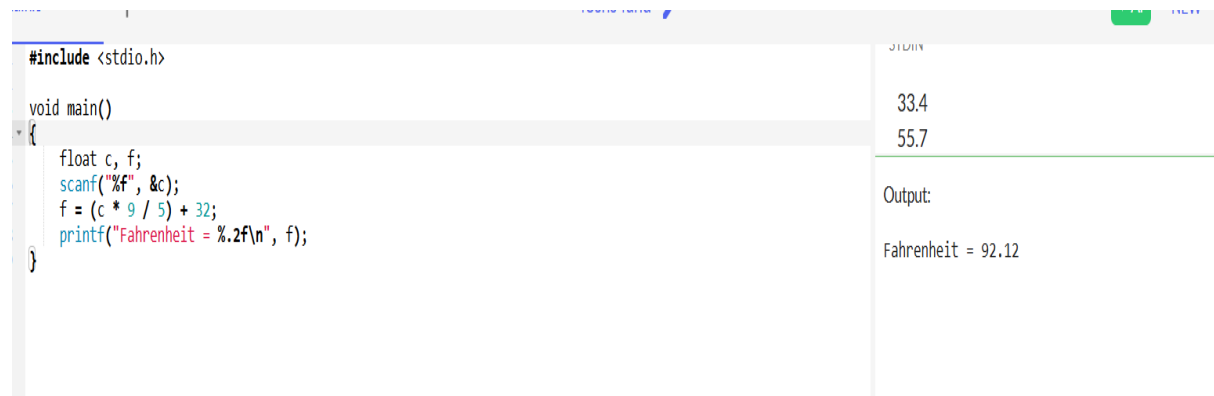
## ASSIGNMENT QUESTIONS 2.08.2025

### 7. Write a program to convert temperature from Celsius to Fahrenheit.

? **Input:** Read the temperature in Celsius.

? **Process:** Convert the temperature to Fahrenheit using the formula:  
$$\text{Fahrenheit} = (\text{Celsius} \times 9 / 5) + 32$$

? **Output:** Display the equivalent temperature in Fahrenheit.



The screenshot shows a C program in a code editor on the left and its execution output on the right. The code defines a `main` function that declares two float variables, `c` and `f`. It uses `scanf` to read a Celsius value from the user, then calculates the Fahrenheit equivalent using the formula `f = (c * 9 / 5) + 32;`, and finally prints the result with `printf("Fahrenheit = %.2f\n", f);`. The output window on the right shows two input values, 33.4 and 55.7, and the corresponding output for the second input: "Fahrenheit = 92.12".

```
#include <stdio.h>

void main()
{
    float c, f;
    scanf("%f", &c);
    f = (c * 9 / 5) + 32;
    printf("Fahrenheit = %.2f\n", f);
}
```

33.4  
55.7

Output:  
Fahrenheit = 92.12

## ASSIGNMENT QUESTIONS 2.08.2025

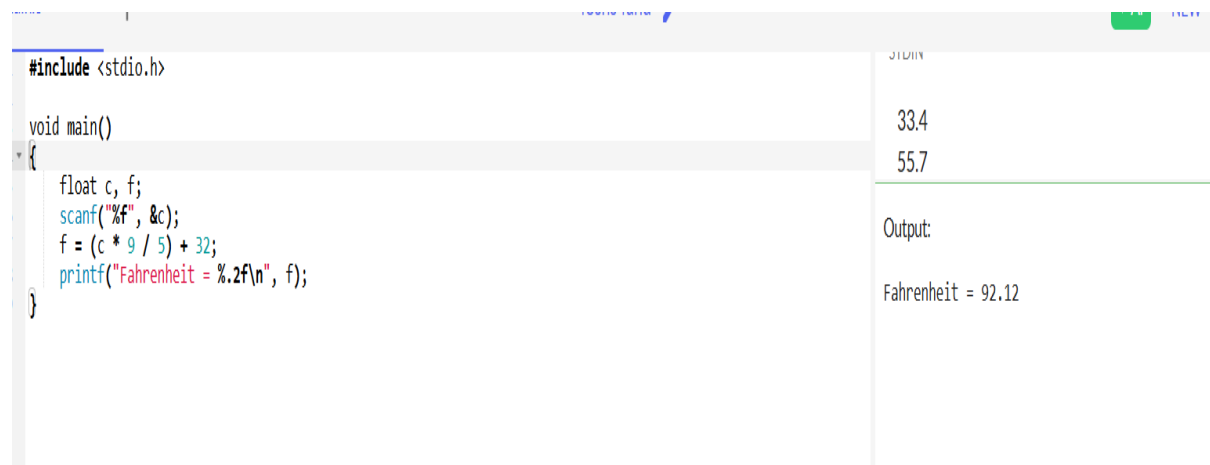
8. Write a program to find the quotient and remainder of two integers.

? **Input:** Read two integers: dividend (a) and divisor (b).

? **Process:**

- Calculate quotient using integer division:  $q = a / b$
- Calculate remainder using modulo:  $r = a \% b$

? **Output:** Display the quotient and remainder.



The image shows a screenshot of a C program in a code editor on the left and its output in a terminal window on the right. The code is as follows:

```
#include <stdio.h>

void main()
{
    float c, f;
    scanf("%f", &c);
    f = (c * 9 / 5) + 32;
    printf("Fahrenheit = %.2f\n", f);
}
```

The terminal window on the right shows the input values 33.4 and 55.7, followed by the output: "Output: Fahrenheit = 92.12".

## ASSIGNMENT QUESTIONS 2.08.2025

9. Write a program to check whether a number is even or odd.

? **Input:** Read an integer number from the user.

? **Process:** Check if the number is divisible by 2 using  $n \% 2$ .

- If remainder is 0 → Even
- Else → Odd

? **Output:** Print "Even" or "Odd" based on the condition.

```
1 #include <stdio.h>
2
3 void main() {
4     int n;
5     scanf("%d", &n);
6     if (n % 2 == 0)
7         printf("Even\n");
8     else
9         printf("Odd\n");
10 }
```

24

Output:

Even

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

- **Input:** The user enters a single integer number.
- **Process:**
  - Calculate the **square** by multiplying the number by itself:  $\text{square} = n \times n$
  - Calculate the **cube** by multiplying the number by itself twice:  $\text{cube} = n \times n \times n$
- **Output:** Display the square and cube values of the entered number.

```
1 #include <stdio.h>
2
3 void main()
4 {
5     int num, square, cube;
6     scanf("%d", &num);
7
8     square = num * num;
9     cube = num * num * num;
10
11     printf("Square = %d\n", square);
12     printf("Cube = %d\n", cube);
13 }
```

STDIN

66

Output:

Square = 4356  
Cube = 287496