

1.

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

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

2.

- ❓ **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 <stdio.h> void main() { int a, b, temp; scanf("%d%d", &a, &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

3.

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.

```
#include <stdio.h>

void main()
{
    int a, b;
    scanf("%d%d", &a,&b);
    a = a + b;
    b = a - b;
    a = a - b;

    printf("After swapping:\n");
    printf("First number = %d\n", a);
    printf("Second number = %d\n", b);
}
```

stdin

3
4

Output:

After swapping:
First number = 4
Second number = 3

4.

- **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);
}
```

p

Output:

The ASCII value of '
' is 10

5.

- ❓ **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);
}
```

p

Output:

The ASCII value of '
' is 10

6.

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
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

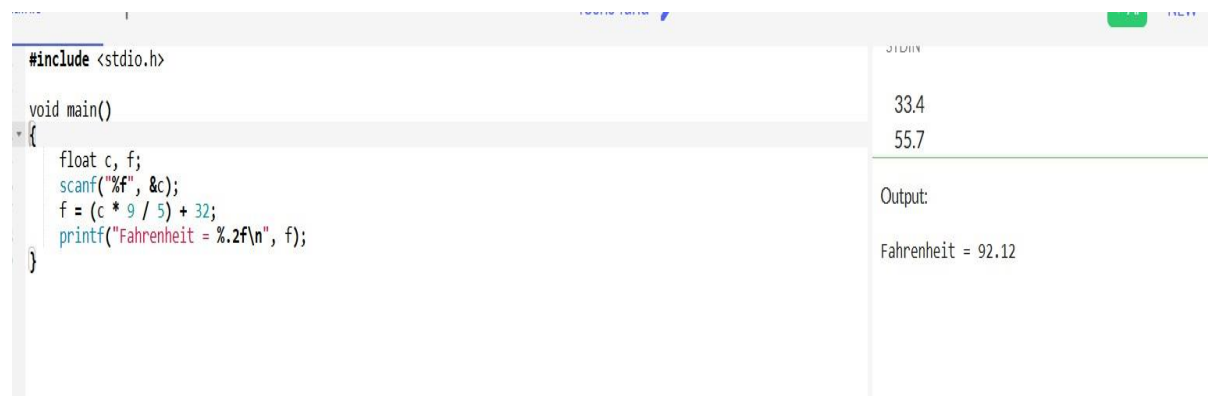
Output:
Simple Interest = 20.54

7.

? **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 image shows a screenshot of a code editor with a C program for converting Celsius to Fahrenheit. 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);
}
```

On the right side of the editor, there is a 'STORY' panel. It contains two input values, 33.4 and 55.7, separated by a horizontal line. Below the line, it says 'Output:' followed by 'Fahrenheit = 92.12'.

8.

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.

```
#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

9.

? **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.

- **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