**1: Variable Declaration Practice**

**Objective:** Declare variables of various data types and assign values.

**Question:**  
Declare and initialize the following variables in C#:

* A string variable for your name.
* An integer variable for your age.
* A float variable for your height.
* A char variable for your grade.
* A bool variable to check if you are a student.

After declaring, print them all using Console.WriteLine.

2**: Calculate Area with Casting**

**Objective:** Use variables, arithmetic, and type casting.

**Question:**  
Create a program to calculate the area of a triangle using the formula:

area = 0.5 \* base \* height;

* Accept base and height as int.
* Use **type casting** to ensure the result is in double.

**3: Sum and Average Calculator**

**Objective:** Practice basic arithmetic with type casting.

**Question:**  
Create a program that:

* Declares 3 integer variables: a = 12, b = 15, c = 18
* Calculates and prints the **sum** and **average**

Ensure the average is shown as a **double** with decimal precision (use casting).

**4: Combine Different Data Types**

**Objective:** Use different data types together.

**Question:**  
Declare the following:

* string name = "Alex";
* int age = 25;
* double height = 5.9;

Print a sentence using all of them like:

Alex is 25 years old and 5.9 feet tall.

Use string interpolation or concatenation.

**5: Decimal to Integer Conversion**

**Objective:** Explore explicit type casting.

**Question:**  
Declare a double with a decimal value (e.g., 9.87) and convert it to int.  
Print both values.

What happens to the decimal part?

**6: Build a Full Name**

**Objective:** Use string variables.

**Question:**  
Declare three string variables:

* firstName = "John"
* middleName = "M."
* lastName = "Smith"

Create and print the full name using string concatenation.

**7: Store Product Details**

**Objective:** Work with mixed data types.

**Question:**  
Declare variables for a product:

* Name (string)
* Price (double)
* Quantity (int)
* Total Price (double: price × quantity)

Print the details in a neat format using string interpolation.

**8: ASCII Explorer**

**Objective:** Convert characters to integers and vice versa.

**Question:**

1. Declare a char variable with any letter (e.g., 'K')
2. Convert it to its ASCII code using (int)
3. Then convert an ASCII code (e.g., 72) to a char using (char)

**9: Bank Account Summary**

**Objective:** Represent a real-world scenario using variables.

**Question:**  
Declare:

* string accountHolder
* long accountNumber
* double balance

Print the following:

Hello [Name]! Your account number [Number] has a balance of $[Balance].

**10: Type Rounding Effect**

**Objective:** Understand what happens when casting float/double to int.

**Question:**  
Declare a double value like 89.99.  
Convert it to int using casting and print both values.

