

Problem 1.

1. Write a complete class named `InventoryItem` that has fields (attributes) for a product's name and price. The class should have a constructor, a `ToString` method, as well as appropriate accessor and mutator (getter and setter) methods.
2. Write the content of the `Main` method of an application program (no need to write the headers, just write the body of the method) that creates an `InventoryItem` object using data given by the user. Then, display the information about that object at the screen. You do not need to perform user input validation.

Problem 2.

Assume that you are given an array of characters named `solution`, that contains ten characters corresponding to the correct answers to the ten questions of an exam. Now, assume you are given a different array of ten characters named `attempt`. It contains a person's answers.

Write a code fragment to display the number of correct answers using both arrays. For example, for the following two arrays, your program should display "You had 7 correct answers."

<code>solution</code>	<code>'D'</code>	<code>'A'</code>	<code>'C'</code>	<code>'E'</code>	<code>'A'</code>	<code>'B'</code>	<code>'B'</code>	<code>'A'</code>	<code>'C'</code>	<code>'E'</code>
<code>attempt</code>	<code>'A'</code>	<code>'A'</code>	<code>'D'</code>	<code>'E'</code>	<code>'A'</code>	<code>'B'</code>	<code>'B'</code>	<code>'A'</code>	<code>'C'</code>	<code>'D'</code>

Problem 3.

Write a program that asks the user to enter the number of guests, then asks the names of the guests, and store their names in an array of the appropriate size. Your program should loop if the value entered by the user for the number of guests is not an integer, or not strictly positive.

Below is an example of running the program where every even line is given by user input. You do not have to reproduce it exactly, it is just to illustrate the expected behavior.

```
How many guests do you have?
Train
How many guests do you have?
-2
How many guests do you have?
2
What is the name of guest 1?
Marc
```

What is the name of guest 2?
Karen

Problem 4.

Answer the following short questions.

1. In C#, what is the “escape character”?
2. What are the possible two values of a Boolean variable?
3. What is the return type of the operation `12.03 * 2`?
4. What is the name of a constructor method?
5. What is the relational operator used to determine whenever two values are different?
6. Write a statement that declares a constant of type `int` named `monthsInYear` and sets its value to 12.
7. Write a condition that evaluates to `true` if an `int` variable named `age` is between 18 and 65 (both included).
8. Write a condition that evaluates to `true` if a `char` variable named `answer` is not `'N'` nor `'n'`.
9. Underline the signature (or prototype) of the following method:

```
public double MyMethod (int param){  
    return param * 1.5;  
}
```

Problem 5.

Write a program that simulate the flipping of a coin 500 times, and then display at the screen the total number of heads and the total number of tails that was obtained.