Question 51: If/else constructs seem to occur frequently. Is there some more efficient way of writing them?

Answer 51: C# has the ternary operator. This operator can be used to streamline the writing of if/else blocks. The logic it expresses is the same.

```
1    using static System.Console; //1) Needed to use WriteLine(..)
2    class Program //2) Outermost level of grouping
3    {
4        static void Main() //3) Loads into memory first
5        { //4) Enters Main
6            double x = 10, y = 4;//5) Declares and sets x and y
7            //6) Line 10 uses the ternary operator to make a logical comparison
8            //7) In line 10, if x>y is true , $"{x}>{y}" is stored to result
9            //8) In line 10, if x>y is false, $"{y}>{x}" is stored to result
10           var result = (x > y) ? $"{x}>{y}" : $"{y}>{x}";
11           WriteLine(result);//9)Prints result
12       } //10) Exits Main   10>4
13   }
```

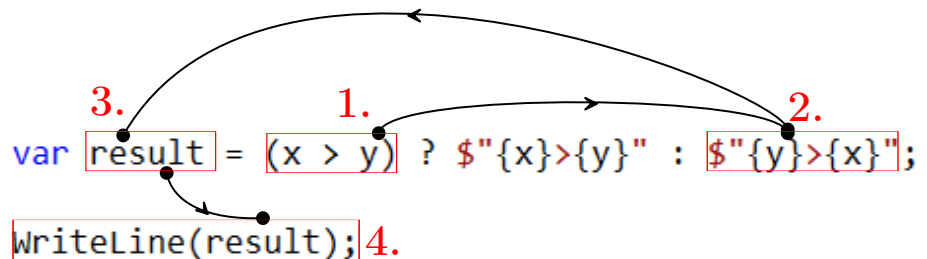Assume x=10, and y=4. Then the ternary operator executes as shown.
1. Check condition
2. Go to $"{x}>{y}"
3. Store $"{x}>{y}" to result
4. Print result
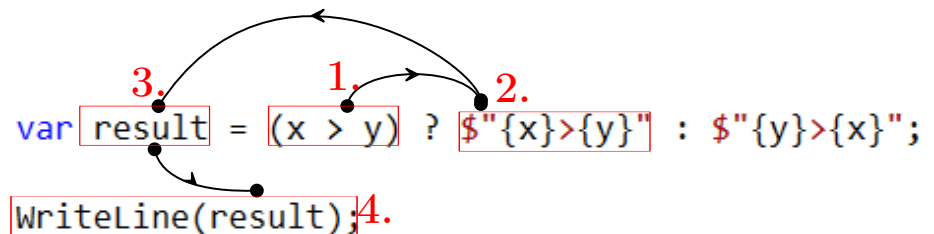
Assume x=4, and y=10. Then the ternary operator executes as shown.
1. Check condition
2. Go to $"{y}>{x}"
3. Store $"{y}>{x}" to result
4. Print result

The general form of this operator is "check condition ? run if true : run if false"

Check point 13: Write code to compare two values. Once they are compared, print the smaller of the two values. This means change 1., 2. and 3. below.


```
var result = (x > y) ? $"{x}>{y}" : $"{y}>{x}";

WriteLine(result);
```