

C# Assignment 2

Let $I = [2, 3[\cup] 0, 1] \cup [-10, -2]$ in the set of reals. Write the program named Interval which:

asks the user to enter a real; saves the user's response in an x variable of the real type; test the membership of x to the set I and display the message " x belongs to I " if this is the case, and " x does not belong to I " otherwise. This test must use only comparator operators $<$ and $==$.

All logical operators are, however, allowed.

Note that, in elementary logic, " $\text{not } (A \text{ and } B)$ " can also be written as " $(\text{not } A) \text{ or } (\text{not } B)$ ".

Test your program with the values -20, -10, -2, -1, 0, 1, 1.5, 2, 3 and 4.

Here's what your program should look like:

```
Enter a real number : -20 x does not belong to I
...
Enter a real number : -10 x belongs to I
...
Enter a real number : -2 x belongs to I
...
Enter a real number : -1 x does not belong to I
...

Enter a real number : 0 x does not belong to I ...

Enter a real number : 1 x belongs to I
...
Enter a real number : 1.5 x does not belong to I
...
Enter a real number : 2 x belongs to I
...

Enter a real number : 3 x does not belong to I ...

Enter a real number : 4 x does not belong to I ...
```