

Name :

Date :

Secondes...

API : Chapter Informatique - Programming in Python

Times : ?? minutes

The assignment is to be attached in a single file.py by email

Inequality with absolute value

Order : Determine the set of values of x ,

$$|ax + b| < c$$

All traces of research will be valued.

Inputs

Input 1 : A float a .

Input 2 : A float b .

Input 3 : A float c .

Some useful commands

- `round(Number, decimal places)`.
- `abs(a)` the absolute value of a number a .
- `str(a)` the string of number a , you give : `'a'`.

Outputs

Case 1 : The lower bound, followed by the upper bound, separated by a space. Both bounds should be rounded to 1 decimal place.

Case 2 : String `True` if true for all values of x .

Case 3 : String `False` if no value of x is true.

Validate your program

Test your program to validate it :

| | Input 1 | Input 2 | Input 3 | Output |
|---|-------------|-------------|-------------|-------------|
| <input type="checkbox"/> Classic test 1 | $a = 1$ | $b = 2$ | $c = 3$ | -5.0 1.0 |
| <input type="checkbox"/> Classic test 2 | $a = 4$ | $b = 5$ | $c = 6$ | -2.8 0.2 |
| <input type="checkbox"/> Always true test 3 | $a = 0$ | $b = -1$ | $c = 8$ | True |
| <input type="checkbox"/> Always false test 4 | $a = 1$ | $b = 2$ | $c = -3$ | False |
| <input type="checkbox"/> Big number test 5 | $a = 1560$ | $b = 78668$ | $c = 95675$ | -111.8 10.9 |
| <input type="checkbox"/> Big number test 6 | $a = 15604$ | $b = 78656$ | $c = 9564$ | -5.7 -4.4 |