

Python Module 3

Conditional execution

1. A program where the user input a number, and the program decides whether the input is even or odd. Solve this with an if-else statement. The test for even-ness is by comparing the number modulo 2 (%) with zero.
2. A program that asks the user to input a number x . It then returns the value of the expression

$$\frac{x^2 + x + 1}{x^2 - 3x + 2}$$

The program should print out “Infinity” if the denominator is zero.

3. A program that asks the user to enter a number and prints

$$\frac{|x^2 - 3x + 1|}{x^2 - 5x + 6}$$

or Infinity, if the denominator is zero. You need to check both denominator and numerator.

4. A program that asks the user to input a floating point number between 0 and 10. The program complains about the input if the user inputs a number larger than 10 or smaller than 0. Otherwise, it prints out the categorization according to the following table.

Input number	Statement
<0.5	minimal
between 0.5 and 3	small
between 3 and 7	medium
between 7 and 9.5	large
larger than 9.5	maximal