Python Fundamentals

Assignment 1

Your task is to write the following two functions:

1. A function to find the root of an equation using the Newton-Raphson method.
2. A function to find the square root of a number using the Newton-Raphson method.

Requirements:

* These functions should be organized in a module named **<your\_name>\_NR.py**.
* The module should be executable and importable (check if \_\_name\_\_ == “\_\_main\_\_” syntax).
* The functions should be made in a way to handle any possible exceptions being raised.
* The functions should ask the user to enter relevant values and/or coefficients as per the use-case.

Your work will be graded on a 10-point scale on the following criteria:

* **Correctness** (working code, expected output) - 4 points
* **Robustness** (exception handling) – 3 points
* **Clarity and Readability** (clean code, comments) – 2 points
* **User Interaction** (clear instructions and error messages) - 1 point
* **Bonus** (a laugh-worthy meme about searching/Newton-Raphson method) - 1 point