Homework 2 Rubric – Name

[15 pts] Question 1:

[10 pts] Code

[] 2 pts for correct input prompts for three integers.
[] 3 pts for correctly calculating and printing integer division using //.
[] 3 pts for correctly calculating and printing floating-point division using /.
[] 2 pts for correctly calculating and printing remainder using %.

[5 pts] Written

[] 1 pts for explaining how integer division (//) returns the quotient, rounding down to the nearest integer.
[] 1 pt for explaining how floating-point division (/) returns the quotient with decimal precision.
[] 1 pt for explaining the remainder operator (%) returns the remainder of the division.
[] 2 pt for explaining what happens when dividing by zero: ZeroDivisionError and that Python cannot perform the operation.

[15 pts] Question 2:

[8 pts] Code + Written

[] 4 pts for correctly determining the value of the result of 2 + 3 * 4 - 6 / 2 without running the code: 11.
[] 4 pts for correct explanation of the order of operations: PEMDAS.

[7 pts] Code + Written

[] 3 pts for explaining that operations inside the parentheses will be evaluated first.
[] 4 pts for code running and printing the correct result of (2 + 3) * (4 - 6) / 2.

[10 pts] Question 3:

[5 pts] Code

[] 3 pts for printing the correct final values of x (16), y (240), and z(15).
[] 2 pts for code running without syntax errors.

[5 pts] Written

[] 5 pts for either of the reasons below or both:

- explaining that variables store one value at a time and the implications of reassignment.
- explaining how losing track of variable values can lead to logical errors in larger programs.

[15 pts] Question 4:

[10 pts] Code

[] 3 pts for printing the correct result for x = 10, y = -5, z = -8 with -x + y - z (3).
[] 3 pts for printing the correct result for x = -10, y = -5, z = 0 (5).
[] 2 pts for printing the correct result for x = 0, y = 0, z = -8 (8).
[] 2 pts for code running without syntax errors.

[5 pts] Written

[] 3 pts for explaining how the unary operator negates values and affects positive and negative numbers.
[] 2 pts for explaining what happens to x, y and z.

[20 pts] Question 5:

[15 pts] Code

[] 2 pts for correct input prompts for one integer and one floating-point number.
[] 3 pts for correct calculation and printing of addition with the correct result and type.
[] 3 pts for correct calculation and printing of subtraction with the correct result and type.
[] 3 pts for correct calculation and printing of multiplication with the correct result and type.
[] 3 pts for correct calculation and printing of division with the correct result and type.
[] 1 pts for using f-strings to print each calculation.

[10 pts] Question 6:

[7 pts] Code

[] 4 pts for correct use of the .format() method to print the sentence with the name and age.
[] 3 pts for code running without syntax errors and printing the expected result.

[3 pts] Written

[] 1 pt for explaining that .format() automatically converts data types, reducing the need for str() conversion.
[] 1 pt for explaining that .format() maintains structure and avoids errors related to spacing or type mismatches.
[] 1 pt for explaining that .format() handles multiple variables easily, avoiding chains of + operators.

[20 pts] Question 7:

[15 pts] Code

[] 5 pts for correct input prompts for why the user is taking the course and what interests them most. (- points if no explicit indication when user should input e.g. question or colon)
[] 5 pts for correct use of triple quotes to display the multi-line string with user answers.
[] 5 pts for code running without syntax errors, and the output formatted as requested.

[5 pts] Written

[] 5 pts for any of the two below reasons:
- for explaining using triple quotes improves readability.
- explaining how triple quotes prevent clutter compared to using \n for every line.
- mentioning this approach reduces formatting errors in more complex strings.

[-10 pts] Submission Requirements (no points added, only deducted if not followed)

[-8 pts] Incorrect file submission

[] PDF file with code screenshots submitted in the correct format and named as yourname_cs110_hw2.pdf along with the corresponding .py file.

[-2 pts] Missing format

[] Student's name, ID, and Honor Code statement correctly included.

Total: /100