Topic: Variables, Math & Logical Operators

Question 1:

Write a program to take in the name and age as user inputs. Print a message in the terminal and make Python introduce yourself.

Example:

Input	Output (in Terminal)
John Doe 53	Hello! My name is John Doe and I am 53 years old.

Question 2:

Write a program to take a number as user input and check if the number is odd or even. Print the label: "The number is odd/even".

Example:

Input	Output (in Terminal)
2	The number is even
15	The number is odd
32	The number is even

Question 3:

Write a program to take in two variables x and y. Assign the values to each of them such that the value of x is greater than the value of y (x > y). Find out their:

- Sum
- Difference
- Multiplication

- Division
  Finally, print each of them with a label: **"Their `<operation>` is: `<result>`"**.

Example:

Input	Output (in Terminal)
5 4	Their sum is: 9 Their difference is: 1 Their multiplication is: 20 Their divison is: 1.25

Question 4:

You are developing a menu-based application to convert temperature from Celsius to Fahrenheit and vice versa. Write a program to take the choice of conversion, and the value to convert to. The choice of conversion are as follows:

- If the user input value is 1, then you need to convert the temperature from Celsius to Fahrenheit.
- If the input value is 2, then you need to convert the temperature from Fahrenheit to Celsius.

Start by:

- Asking the choice of the conversion with the label, "Enter the choice of conversion:".
- Next, ask with the label, "Enter the temperature in Celsius/Fahrenheit:".

Finally, print the converted temperature with the label: "The converted temperature is: `<result>` Celsius/Fahrenheit". See the examples below.

Example:

Input	Output
Enter the choice of conversion : 1 Enter the temperature in Celsius: 25	The converted temperature is: 77 Fahrenheit
Enter the choice of conversion : 2 Enter the temperature in Fahrenheit: 77	The converted temperature is: 25 Celsius

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Question 5:

You are developing an application for a supermarket checkout. Write a program that would take the name of an item, it's price, and how many of it is being purchased by the customer (the quantity). You need to take the name, price, and quantity as inputs from the user:

- Begin by asking with the label, "Enter the item name:" to get the name of the item.
- Then, ask with the label, "Enter the price of the item:" to get the price of the item.
- Finally, ask, "Enter the quantity of the item:" to get the quantity of the item the customer is purchasing.

Finally print it with the label: **"The total price of `<name>` purchased: `<total_price>`"**. See the examples below.

Example:

Input	Output
Enter item name: Apple Enter item price: 10 Enter item quantity: 2	The total price of Apple purchased: 20 BDT
Enter item name: Speaker Enter item price: 1000 Enter item quantity: 10	The total price of Speaker purchased: 10000 BDT

Question 6:

Write a simple program that helps users calculate the area and perimeter/circumference of different shapes based on their choice. The program should ask the user to input a number corresponding to the shape they want to calculate. The choices are as follows:

- If the user input value is 1, then calculate the area for a circle.
- If it is 2, then calculate the area for a square.
- If it is 3, then calculate the area for a rectangle.
- If it is 4, then calculate only the area for a triangle.

After choosing the shape, the program should ask for the necessary values:

- For a circle, ask for the radius.
- For a square, ask for the length of a side.
- For a rectangle, ask for the lengths of two sides.
- For a triangle, ask for the base and height.

Calculate their area and finally, print the values in the terminal. See the inputs and corresponding outputs in the examples below.

NOTE: Take the value of pi π as 3.14.

Example:

Input	**Output (in Terminal)**
Enter choice of shape: 1 Enter the radius: 5	Area of the circle: 78.5
Enter choice of shape: 2 Enter the length: 10	Area of the square: 100
Enter choice of shape: 3 Enter the length for one side: 10 Enter the length for another side: 5	Area of the rectangle: 50
Enter choice of shape: 4 Enter the base: 5 Enter the height: 10	Area of the triangle: 25

Question 7: