Unit of Measurement Converter

In many scenarios, we need to convert units of measurement between various systems. The task is to create a program that allows users to easily convert between common length units such as **inches**, **feet**, and **yards**.

Your goal is to implement a converter that takes in a starting unit of measurement (inches, feet, or yards) and converts it to another unit of measurement (inches, feet, or yards). The program should handle user input, validate the input units, and perform the appropriate calculations based on the given conversion relationships:

- 1 foot = 12 inches

- 1 yard = 3 feet

- 1 yard = 36 inches

Requirements:

1. **Input**:

    o   The user will input the starting unit (either inches, feet, or yards).

    o   The user will input the target unit to convert to (either inches, feet, or yards).

    o   The user will input the value to be converted based on the starting unit.

2. **Output**:

    o   The program will output the converted value, rounded to an appropriate number of decimal places.

3. **Functional Requirements**:

    o   The program should support conversions from:

        ▪   Inches to Feet, Inches to Yards

        ▪   Feet to Inches, Feet to Yards

        ▪   Yards to Inches, Yards to Feet

    o   If the user provides invalid units or inputs, the program should display an error message and prompt for valid input.

4. **Edge Cases**:

    o   Handle incorrect unit inputs (e.g., a user types an invalid unit like "meters").

    o   Handle invalid numerical inputs (e.g., a user enters a non-numeric value).

Example:

For instance, if a user selects:

- **Convert from:** Inches

- **Convert to:** Feet

- **Input value:** 36 inches

The program should output:

- **Result:** 36 Inches = 3 Feet