UnitConverter.java

Directions: Use one input then print the equivalent amounts in feet, yards and centimeter units.

- After your description, there is testing. Tell the data type and the type of input that should work, then give 2 examples of input and the resulting output
- For pseudocode, on paper, create a diagram showing how the program will be organized into a class and several methods. Show methods with arrows and indicate what parameter(s) would be passed and what, if any, returned value(s). Remember, even if there is no return value, there is a return arrow.
- For input be specific in the prompt what data type and appropriate value, to address testing.
- You must use *one* field variable (inches). For everything else (the methods), you will use parameter(s) and a return value, when appropriate. The field variable must be different than the other ones listed. Remember, the field variable is declared outside the methods, inside the class and can be used in every method of the class. If you need a variable in a different method for a quantity, such as feet, use a different variable name!
- You may choose to use *InchesToFeet* to start your program and copy the needed part into the appropriate method for this program. *InchesToFeet* also has some good reminders in its directions.
- Use printf to print decimals to two decimal places as shown in the example
- Use *final* constants for the three conversion factors. No magic numbers!
- Refer to the Best Practices we use in class – Pandas Don't Eat Oreos gives a summary.
- This is a one-class, six-method program (including *main*, a method to get the input and three conversion methods (inches to feet, feet to yards, and inches to cm) and one to print the information)*. (Writer-defined methods and classes)

Example:

Welcome to Unit Converter! This program will take in the number of inches and print the number of feet, yards and centimeters.

Please enter the number of inches --> **23**   ****<*more in prompt* – consider testing plan> ****

 23 inches is equivalent to 1.92 feet, 0.64 yards, and 58.42 centimeters.

UC4 below

For version4: UnitConverter4 UnitConverterTester4

First start with a paper diagram, i.e. the plan or pseudocode

Move the methods print and getInches into UnitConverterTester4.
There is only one field variable. Have it in UnitConverterTester4.
Leave the conversion methods in UnitConverter4
There is no static (except for main!).
Create instances of the classes as needed.
Put convertIt in UnitConverterTester4.
So, UnitConverterTester4 will have 5 methods:
        the constructor, main, convertIt, getInches and print
UnitConverter4 will have 4 methods:
        the constructor, inchesToFeet, feetToYards and inchesToCm.
When the instance of the class is made, the constructor is being called, so there are arrows
going to and from the constructor.

There are only about 20 words of code that need to be added in. That includes changing a
variable name! This program is really about moving the code from one place to another,
and understanding how to call a method in the same class or a different class. All of the
versions are related to using an instance to call a method so you can get rid of static!