

Unit 3 Lab 4 - Wrapper Classes

class hour _____

Pts: 5

Name _____

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I. Wrapper Classes (discussed but not in detail in our textbook)

- 1) a) Open **P1ch3lab4.java**
- b) Run and write the output after entering 12

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- c) Take away the `//` from the first and last comments so that they are no longer comments
 - d) Run and write the error message at the bottom of the window
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Important Summary

Data read from the method `readLine()` or entered by using `ShowInputDialog()` is a string of characters; therefore, it must be declared as a `String` object. A `String` is appropriate for data such as a person's name, but Java cannot perform mathematical operations on a `String`. Consequently, any input data that a programmer plans to use in formulas must be converted from a `String` to a numeric data type. In the `java.lang` package, the `Integer` and `Double` wrapper classes provide several methods for converting a `String` to a numeric data type (and vice versa).

One of the methods associated with the wrapper classes is the `parse()` method, which allows programmers to convert `Strings` to a numeric data type. The `parse()` method is unique to each of its data types. The `parseInt()` method belongs to the `Integer` class of objects, while the `parseDouble()` method belongs to the `Double` class of objects. The basic syntax of any `parse()` method is to list the object class followed by a period, followed by the specific method name, such as `parseInt()` or `parseDouble()`. The `String` variable to be converted is placed inside the method's parentheses. Example: `int num = Integer.parseInt(numStr);` or `double num = Double.parseDouble(numStr);`

*For each of the `parse()` methods, the end result is the same: a `String` is converted to a number.

- e) Take away the `//` from the other 2 comments so that they are no longer comments and delete the line `product = 2 * numStr;`
 - f) Run and write the output of the *last* line after entering 12
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- g) Run and write the *second* line of output after entering 12.5
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(Note: This is similar to an error message but one built-in to the Java program.)

- h) Change the data type declaration and change the `parse()` line so that the program Runs correctly.
- i) Show the corrected code and output to your teacher

(teacher signature)

Turn in this sheet to be graded!