type.lib
Class Stock

This class encapsulates a stock. It holds attributes relevant to a stock; such as its symbol, name, and last-traded price.

Constructor Summary

`Stock()`
> Construct a default Stock having a `null` symbol.

`Stock(String symbol)`
> Construct a Stock having the (capitalized) passed symbol. Valid symbols have the form `HR.L` where `L` is any letter, or the form `.LL` where `L` is any letter.

Method Summary

`boolean`	`equals(Object other)` Test the equality of stock objects. Two stocks are considered equal if the have the same symbol.
`String`	`getName()` Determine the name of the Stock as listed on the exchange. The name will be null if the stock has an unknown symbol.
`double`	`getPrice()` Determine the price of the Stock. The price will be 0.0 if the stock has an unknown symbol.
`String`	`getSymbol()` Determine the symbol of the Stock.
`void`	`setSymbol(String symbol)` Mutator to change the symbol of the Stock to the (capitalized) passed symbol.

Write a Java program named BuyStock.java that asks the user for an amount of money that they have to invest (a real number), the symbol of the stock that they wish to purchase (a string), and the number of shares that they wish to purchase (a whole number).

Your program should perform input validation using the ToolBox utility. It should check that the amount of money and the number of shares are both greater than or equal to zero. It should also check that a stock exists with the user-provided symbol.

Your program should calculate the total amount of money that is required to purchase the shares of stock. If this amount is greater than the amount the user wants to invest, the program should calculate the number of shares (a whole number) that could be purchased and the amount of money that would be required. Your program should output the number of shares purchased and the amount of money required to do so.

See sample output on back of page.

Sample output:

```
How much money do you want to invest? 10.00
Symbol of the stock? HR.A
Number of shares? 5
You bought 5 shares of ACOMP CORP for $5.05


How much money do you want to invest? 1000.00
Symbol of the stock? HR.Z
Number of shares? 200
You bought 38 shares of ZTECH INC. for $997.88
```