Library Functions Appearing in this Class

This table lists the library functions mentioned or used in Venit's text (except Val) or in the Pseudocode Demonstrations. Some are useful, some less so. In your assignments or final project, feel free to use any of these that you find useful.

Function Name	Parameter Type	Result Type	Action	Reference (V=Venit; PD = Pseudocode Demo)	Note
Abs	Float	Float	Returns the absolute value of the input.	V.375	
Ceiling	Float	Float	Returns the greatest integer that is less than or equal to the input.	V.204	
Floor	Float	Float	Returns the least integer that is greater than or equal to the floor.	V.204	
getFloatValue	String	Float	If the input string represents a valid Float value, this value is returned; otherwise the program is terminated.	PD	3
getIntegerValue	String	Integer	If the input string represents a valid Integer value, this value is returned; otherwise the program is terminated.	PD	3
Int	Float	Float	The result is obtained by discarding the fractional part of the input.	V.200	1
isValidFloat	String	Boolean	Returns TRUE if the parameter value represents a valid Float, otherwise returns FALSE.	PD	3
isValidInteger	String	Boolean	Returns TRUE if the parameter value represents a valid Integer, otherwise returns FALSE.	PD	3
Length_Of	String	Integer	Returns the length of the input string.	V.375	
Random	[none]	Float	Returns a number "randomly" chosen from the range 0.0 to 1.0.	V.375	
Round	Float	Float	Rounds the number to the nearest integer.		2
Sqrt	Float	Float	If the input is non-negative, returns the square root of the input; otherwise the program is terminated.	V.375; PD	
ToLower	String	String	Returns a string derived from the input by changing all alphabetic characters to lower case.	V.375	
ToUpper	String	String	Returns a string derived from the input by changing alphabet characters to upper case.	V.375	

Note 1: Programming languages differ in their implementations of Int. The two implementations are: (A) If the input is positive, Int returns the same value as Floor. If the input is negative, Int returns the same value as Ceiling. (B) Same as Floor. Use with caution unless you know that the input is positive.

Note 2: If the fractional part is exactly 0.5, and the input is positive, the input is rounded up. Programming languages differ in their handling of negative inputs. Use with caution unless you know that the input is positive.

Note 3: Every programming language system provides some set of tools for performing these important tasks. However, languages vary widely in the form and syntax of the tools. The functions defined here are not intended to resemble the tools of any particular language; rather, they are designed to be easily understood and used.