

## Visual Basic Predefined Functions

Each function has a name and takes a number of parameters, given in parentheses. Each function also returns a value that can be used in a program.

Examples of using the function called StrReverse:

```
Dim Mystring As String
Mystring = StrReverse ( "MIRROR")
```

or Mystring = "MY" & StrReverse ( "MIRROR")

Examples of using the function called InStr:

```
Dim position As Integer
position = InStr ( "Cadillac", "a" )
```

or position = 15 + InStr ( "Cadillac", "a" )

<u>String Functions:</u>	<u>Syntax:</u>	<u>Use:</u>
Asc	Asc( <i>char</i> )	Returns the ASCII key code of a character; for example <b>Asc("A")</b> returns <b>65</b>
Chr	Chr( <i>int</i> )	Returns a character that is associated with the ASCII value of the integer; for example <b>Chr(66)</b> returns <b>"B"</b>
Val	Val( <i>string</i> )	Converts the string to numeric value; for example <b>Val("-23.5")</b> returns <b>-23.5</b> (as a double)
Str	Str( <i>int</i> )	Converts an integer into a string; for example <b>Str(-32.5)</b> returns <b>"-32.5"</b>
StrReverse	StrReverse( <i>S</i> )	Returns a string in the mirror image of the string <i>S</i> ; for example <b>StrReverse("MIRROR")</b> returns <b>"RORRIM"</b>
LCASE	LCASE( <i>S</i> )	Returns a string of all lowercase letters of the string <i>S</i> ; for example <b>LCASE("LOWer")</b> returns <b>"lower"</b>
UCASE	UCASE( <i>S</i> )	Returns a string of all uppercase letters of the string <i>S</i> ; for example <b>UCASE("uppER")</b> returns <b>"UPPER"</b>
Space	Space( <i>n</i> )	Generates a string of <i>n</i> number of spaces; for example <b>Space(1)</b> returns " "
StrDup	StrDup( <i>n, char</i> )	Generates a string with <i>n</i> number of repetitive characters; for example <b>StrDup(3, "Z")</b> returns <b>"ZZZ"</b>

Left	Strings.Left( <i>S</i> , <i>n</i> )	Returns a string with the first <i>n</i> characters of the string <i>S</i> ; for example <b>Strings.Left("My Cats", 2)</b> returns <b>"My"</b>
Right	Strings.Right( <i>S</i> , <i>n</i> )	Returns a string with the first <i>n</i> characters of the string <i>S</i> ; for example <b>Strings.Right("My Cats", 3)</b> returns <b>"ats"</b>
Mid	1) Mid( <i>S</i> , <i>b</i> ) -or-	Returns a string starting from the <i>b</i> th place of the string <i>S</i> ; for example <b>Mid("My Cats", 2)</b> returns <b>"y Cats"</b>
	2) Mid( <i>S</i> , <i>b</i> , <i>n</i> )	Returns a string of <i>n</i> characters starting at the <i>b</i> th place of the string <i>S</i> ; for example <b>Mid("My Cats", 2, 3)</b> returns <b>"y C"</b>
InStr	1) InStr( <i>S</i> , <i>m</i> ) -or-	Returns the position in the string <i>S</i> at which the content matches the string <i>m</i> ; for example <b>InStr("Cadillac", "a")</b> returns <b>2</b> Or returns 0 if there is no match.
	2) InStr ( <i>b</i> , <i>S</i> , <i>m</i> )	Returns the position in the string <i>S</i> at which the content matches the string <i>m</i> . The comparison will start from the <i>b</i> th position of <i>S</i> ; for example <b>InStr(4, "Cadillac", "a")</b> returns <b>7</b> Or returns 0 if no match from that position.
InStrRev	1) InStrRev( <i>S</i> , <i>m</i> ) -or-	Returns the position in the string <i>S</i> at which the content matches the string <i>m</i> . The comparison starts from the last position of <i>S</i> for example <b>InStr("Science", "c")</b> returns <b>6</b>
	2) InStrRev ( <i>S</i> , <i>m</i> , <i>b</i> )	Returns the position in the string <i>S</i> at which the content matches the string <i>m</i> . The comparison will start from the <i>b</i> th position of <i>S</i> , and work its way to the beginning of the string; for example <b>InStr("Science", "c", 5)</b> returns <b>2</b>
Len	Len( <i>string</i> )	Returns the integer length of the string; for example <b>Len("Hello")</b> returns <b>5</b>
LTrim	LTrim( <i>string</i> )	Returns a string with all the leading blank spaces trimmed off; for example <b>LTrim(" Hello ")</b> returns <b>"Hello "</b>
RTrim	RTrim( <i>string</i> )	Returns a string with all the trailing blank spaces trimmed off; for example <b>RTrim(" Hello ")</b> returns <b>"Hello"</b>
Trim	RTrim( <i>string</i> )	Returns a string with all the leading and trailing blank spaces trimmed off; for example <b>Trim(" Hello ")</b> returns <b>"Hello"</b>

Math Functions:  
Round

Syntax:  
Math.Round(*d*, *b*)

Use:  
Rounds the decimal point number *d* to the *b*th decimal place. The default will always round the midpoint (or 5) to the nearest even number; for example **Math.Round(12.25, 1)** returns **12.2** and **Math.Round(12.35, 1)** returns **12.4**

(Note: To have the midpoint always round up, or away from the nearest 0, add MidpointRounding.AwayFromZero as the third parameter. For example **Math.Round(12.25, 1, MidpointRounding.AwayFromZero)** returns **12.3**)

Sqrt	Math.Sqrt( <i>n</i> )	Returns the Square Root of the number <i>n</i>
Abs	Math.Abs( <i>n</i> )	Returns the Absolute value of the number <i>n</i>
Floor	Math.Floor( <i>n</i> )	Returns the Integer Value of the number <i>n</i> ; for example <b>Math.Floor(54.7)</b> returns <b>54</b>
Ceiling	Math.Ceiling( <i>n</i> )	Returns the next greatest Integer Value from the number <i>n</i> ; for example <b>Math.Ceiling(76.3)</b> returns <b>77</b>
Rnd	Rnd	Returns a random number, with a decimal value between 0 and 1. May be used with the procedure Randomize.