

Numbers

<code>parse-integer</code>	Parses an integer from a string
<code>floor, ceiling</code>	Truncates toward negative/positive infinity
<code>round</code>	Rounds to the nearest integer
<code>mod, rem</code>	Modulus/remainder of a truncating division
<code>1+, 1-</code>	Returns a new value (inc/dec)remented by a number
<code>incf, decf</code>	📌 Macros to (inc/dec)rement in place
<code>=, /=</code>	Mathematical value equality (types ignored)
<code>>, >=, <, <=</code>	Order comparison

Characters

Strings

`format` Returns a formatted output string when the *destination* is `nil`

Sequences

<code>elt</code>	Access elements with an integer index
<code>length</code>	
<code>count</code>	Count the appearances of an element
<code>find</code>	Finds an item or returns <code>nil</code>
<code>position</code>	The first index of an element
<code>remove</code>	Removes all the occurrences of an item
<code>substitute</code>	Replaces all occurrences of an item

Lists

<code>mapcar</code>	Successively applies a function to each element of a list
<code>maplist</code>	Like <code>mapcar</code> , but its function receives a <code>cons</code> cell instead of its element (therefore, the function has access to the rest of the list)
<code>mapcan</code>	Like <code>mapcar</code> , but the results are combined into a list
<code>mapcon</code>	Like <code>mapcan</code> , but applied to <code>maplist</code>

Vectors

Hash Tables

Things to remember

Object Oriented All values in a Common Lisp program are instances of some **class**. Furthermore, all classes are organized into a single hierarchy rooted at the class `T`.

Starting a project SBCL and Quicklisp installation and a project template

Equality

<code>eq</code>	Object identity (don't use with numbers or chars)
<code>eql</code>	👍 Considers equivalent two objects of the same class with the same numeric or char value
<code>equal</code>	Lists with the same structure and contents, strings with the same characters
<code>equalp</code>	Ignores differences in case or in numerical type (<code>1 == 1.0</code>)

Functions

<code>defun</code>	
<code>lambda</code>	Returns an anonymous function
<code>return-from</code>	Immediately returns a value from a function (or a <code>block</code>)
<code>funcall</code>	Invokes a function from a function object
<code>apply</code>	Works like <code>funcall</code> , but receives the arguments as a list
<code>&optional, &key, &rest,</code> <code>&allow-other-keys</code>	Different ways to capture function arguments

Standard Control Constructs

<code>if</code>	The <i>else</i> form is optional
<code>when</code>	Like <code>if</code> , but returns <code>nil</code> if the condition is <i>falsy</i> and evaluates multiple body forms
<code>unless</code>	Like <code>when</code> , but executes its body only when the condition is <i>falsy</i>



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IO

`format` Produces formatted output to *stdout* when the *destination* is `t`

`format language`

`~a, ~s,` Interpolate argument in human readable format; interpolate as *Lisp* readable

`~%, ~&` Newline; newline if not at the beginning of a line

Object-Oriented

`defgeneric` Defines an abstract operation (*polymorphism*)

`defmethod` Defines an implementation of a generic function

`call-next-method` Similar to an invocation to a super-class method

`defclass` New named class; some slot options are: `:reader,`
`:writer, :accessor, :initarg, :initform,`
`:documentation, :allocation`

`slot-value` Returns the value of slot in the object (`setf`-able)

`with-slots,` Binds a slot/accessor to a symbol that can be used in its
body

`with-accessors`



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