```
          CONTEXTS  SIGILS             ARRAYS        HASHES
     void      $scalar   whole:   @array        %hash
     scalar    @array    slice:   @array[0, 2]  @hash{'a', 'b'}
     list      %hash     element: $array[0]     $hash{'a'}
               &sub
               *glob    SCALAR VALUES
                        number, string, reference, glob, undef
     REFERENCES
     \     references      $$foo[1]       aka $foo->[1]
     $@%&* dereference     $$foo{bar}     aka $foo->{bar}
     []    anon. arrayref  ${$$foo[1]}[2] aka $foo->[1]->[2]
     {}    anon. hashref   ${$$foo[1]}[2] aka $foo->[1][2]
     \()   list of refs
                          NUMBERS vs STRINGS  LINKS
     OPERATOR PRECEDENCE     =          =        perl.plover.com
     ->                      +          .        search.cpan.org
     ++ --                   == !=      eq ne        cpan.org
     **                      < > <= >=  lt gt le ge   pm.org
     ! ~ \ u+ u-             <=>        cmp          tpj.com
     =~ !~                                       perldoc.com
     * / % x                 SYNTAX
     + - .                   for    (LIST) { }, for (a;b;c) { }
     << >>                   while  ( ) { }, until ( ) { }
     named uops              if     ( ) { } elsif ( ) { } else { }
     < > <= >= lt gt le ge   unless ( ) { } elsif ( ) { } else { }
     == != <=> eq ne cmp     for equals foreach (ALWAYS)
     &
     | ^             REGEX METACHARS            REGEX MODIFIERS
     &&              ^     string begin         /i case insens.
     ||              $     str. end (before \n) /m line based ^$
     .. ...          +     one or more          /s . includes \n
     ?:              *     zero or more         /x ign. wh.space
     = += -= *= etc. ?     zero or one          /g global
     , =>            {3,7} repeat in range
     list ops        ()    capture          REGEX CHARCLASSES
     not             (?:)  no capture       .  == [^\n]
     and             []    character class  \s == [\x20\f\t\r\n]
     or xor          |     alternation      \w == [A-Za-z0-9_]
                     \b    word boundary    \d == [0-9]
                     \z    string end       \S, \W and \D negate
     DO
     use strict;        DON'T            LINKS
     use warnings;      "$foo"           perl.com
     my $var;           $$variable_name  perlmonks.org
     open() or die $!;  `$userinput`     use.perl.org
     use Modules;       /$userinput/     perl.apache.org
                                         parrotcode.org
     FUNCTION RETURN LISTS
     stat      localtime    caller         SPECIAL VARIABLES
      0 dev    0 second     0 package      $_    default variable
      1 ino    1 minute     1 filename     $0    program name
      2 mode   2 hour       2 line         $/    input separator
      3 nlink  3 day        3 subroutine   $\    output separator
      4 uid    4 month-1    4 hasargs      $|    autoflush
      5 gid    5 year-1900  5 wantarray    $!    sys/libcall error
      6 rdev   6 weekday    6 evaltext     $@    eval error
      7 size   7 yearday    7 is_require   $$    process ID
      8 atime  8 is_dst     8 hints        $.    line number
      9 mtime               9 bitmask      @ARGV command line args
     10 ctime  just use                    @INC  include paths
     11 blksz  POSIX::      3..9 only      @_    subroutine args
        12 blcks  strftime!    with EXPR      %ENV  environment
```

A

* abs - absolute value function
* accept - accept an incoming socket connect
* alarm - schedule a SIGALRM
* atan2 - arctangent of Y/X in the range -PI to PI

B

* bind - binds an address to a socket
* binmode - prepare binary files for I/O
* bless - create an object
* break -

C

* caller - get context of the current subroutine call
* chdir - change your current working directory
* chmod - changes the permissions on a list of files
* chomp - remove a trailing record separator from a string
* chop - remove the last character from a string
* chown - change the owership on a list of files
* chr - get character this number represents
* chroot - make directory new root for path lookups
* close - close file (or pipe or socket) handle
* closedir - close directory handle
* connect - connect to a remote socket
* continue - optional trailing block in a while or foreach
* cos - cosine function
* crypt - one-way passwd-style encryption

D

* dbmclose - breaks binding on a tied dbm file
* dbmopen - create binding on a tied dbm file
* defined - test whether a value, variable, or function is defined
* delete - deletes a value from a hash
* die - raise an exception or bail out
* do - turn a BLOCK into a TERM
* dump - create an immediate core dump

E

* each - retrieve the next key/value pair from a hash
* endgrent - be done using group file
* endhostent - be done using hosts file
* endnetent - be done using networks file
* endprotoent - be done using protocols file
* endpwent - be done using passwd file
* endservent - be done using services file
* eof - test a filehandle for its end
* eval - catch exceptions or compile and run code
* exec - abandon this program to run another
* exists - test whether a hash key is present
* exit - terminate this program
* exp - raise I to a power

F

* fcntl - file control system call
* fileno - return file descriptor from filehandle
* flock - lock an entire file with an advisory lock
* fork - create a new process just like this one
* format - declare a picture format with use by the write() function
* formline - internal function used for formats

G

* getc - get the next character from the filehandle
* getgrent - get next group record
* getgrgid - get group record given group user ID
* getgrnam - get group record given group name
* gethostbyaddr - get host record given its address
* gethostbyname - get host record given name
* gethostent - get next hosts record
* getlogin - return who logged in at this tty
* getnetbyaddr - get network record given its address
* getnetbyname - get networks record given name
* getnetent - get next networks record
* getpeername - find the other end of a socket connection
* getpgrp - get process group
* getppid - get parent process ID
* getpriority - get current nice value
* getprotobyname - get protocol record given name
* getprotobynumber - get protocol record numeric protocol
* getprotoent - get next protocols record
* getpwent - get next passwd record
* getpwnam - get passwd record given user login name
* getpwuid - get passwd record given user ID
* getservbyname - get services record given its name
* getservbyport - get services record given numeric port
* getservent - get next services record
* getsockname - retrieve the sockaddr for a given socket
* getsockopt - get socket options on a given socket
* glob - expand filenames using wildcards
* gmtime - convert UNIX time into record or string using Greenwich time
* goto - create spaghetti code
* grep - locate elements in a list test true against a given criterion

H

* hex - convert a string to a hexadecimal number

I

* import - patch a module's namespace into your own
* index - find a substring within a string
* int - get the integer portion of a number
* ioctl - system-dependent device control system call

J

* join - join a list into a string using a separator

K

* keys - retrieve list of indices from a hash
* kill - send a signal to a process or process group

L

* last - exit a block prematurely
* lc - return lower-case version of a string
* lcfirst - return a string with just the next letter in lower case
* length - return the number of bytes in a string
* link - create a hard link in the filesytem
* listen - register your socket as a server
* local - create a temporary value for a global variable (dynamic scoping)
* localtime - convert UNIX time into record or string using local time
* lock - get a thread lock on a variable, subroutine, or method
* log - retrieve the natural logarithm for a number
* lstat - stat a symbolic link

M

* m - match a string with a regular expression pattern
* map - apply a change to a list to get back a new list with the changes
* mkdir - create a directory
* msgctl - SysV IPC message control operations
* msgget - get SysV IPC message queue
* msgrcv - receive a SysV IPC message from a message queue
* msgsnd - send a SysV IPC message to a message queue
* my - declare and assign a local variable (lexical scoping)

N

* next - iterate a block prematurely
* no - unimport some module symbols or semantics at compile time

O

* oct - convert a string to an octal number
* open - open a file, pipe, or descriptor
* opendir - open a directory
* ord - find a character's numeric representation
* our - declare and assign a package variable (lexical scoping)

P

* pack - convert a list into a binary representation
* package - declare a separate global namespace
* pipe - open a pair of connected filehandles
* pop - remove the last element from an array and return it
* pos - find or set the offset for the last/next m//g search
* print - output a list to a filehandle
* printf - output a formatted list to a filehandle
* prototype - get the prototype (if any) of a subroutine
* push - append one or more elements to an array

Q

* q - singly quote a string
* qq - doubly quote a string
* qr - Compile pattern
* quotemeta - quote regular expression magic characters
* qw - quote a list of words
* qx - backquote quote a string

R

* rand - retrieve the next pseudorandom number
* read - fixed-length buffered input from a filehandle
* readdir - get a directory from a directory handle
* readline - fetch a record from a file
* readlink - determine where a symbolic link is pointing
* readpipe - execute a system command and collect standard output
* recv - receive a message over a Socket
* redo - start this loop iteration over again
* ref - find out the type of thing being referenced
* rename - change a filename
* require - load in external functions from a library at runtime
* reset - clear all variables of a given name
* return - get out of a function early
* reverse - flip a string or a list
* rewinddir - reset directory handle
* rindex - right-to-left substring search
* rmdir - remove a directory

S

* s - replace a pattern with a string
* say -
* scalar - force a scalar context
* seek - reposition file pointer for random-access I/O
* seekdir - reposition directory pointer
* select - reset default output or do I/O multiplexing
* semctl - SysV semaphore control operations
* semget - get set of SysV semaphores
* semop - SysV semaphore operations
* send - send a message over a socket
* setgrent - prepare group file for use
* sethostent - prepare hosts file for use
* setnetent - prepare networks file for use
* setpgrp - set the process group of a process
* setpriority - set a process's nice value
* setprotoent - prepare protocols file for use
* setpwent - prepare passwd file for use
* setservent - prepare services file for use
* setsockopt - set some socket options
* shift - remove the first element of an array, and return it
* shmctl - SysV shared memory operations
* shmget - get SysV shared memory segment identifier
* shmread - read SysV shared memory
* shmwrite - write SysV shared memory
* shutdown - close down just half of a socket connection
* sin - return the sine of a number
* sleep - block for some number of seconds
* socket - create a socket
* socketpair - create a pair of sockets
* sort - sort a list of values
* splice - add or remove elements anywhere in an array
* split - split up a string using a regexp delimiter
* sprintf - formatted print into a string
* sqrt - square root function
* srand - seed the random number generator
* stat - get a file's status information
* state -
* study - optimize input data for repeated searches
* sub - declare a subroutine, possibly anonymously
* substr - get or alter a portion of a stirng
* symlink - create a symbolic link to a file
* syscall - execute an arbitrary system call
* sysopen - open a file, pipe, or descriptor
* sysread - fixed-length unbuffered input from a filehandle
* sysseek - position I/O pointer on handle used with sysread and syswrite
* system - run a separate program
* syswrite - fixed-length unbuffered output to a filehandle

T

* tell - get current seekpointer on a filehandle
* telldir - get current seekpointer on a directory handle
* tie - bind a variable to an object class
* tied - get a reference to the object underlying a tied variable
* time - return number of seconds since 1970
* times - return elapsed time for self and child processes
* tr - transliterate a string
* truncate - shorten a file

U

* uc - return upper-case version of a string
* ucfirst - return a string with just the next letter in upper case
* umask - set file creation mode mask
* undef - remove a variable or function definition
* unlink - remove one link to a file
* unpack - convert binary structure into normal perl variables
* unshift - prepend more elements to the beginning of a list
* untie - break a tie binding to a variable
* use - load in a module at compile time
* utime - set a file's last access and modify times

V

* values - return a list of the values in a hash
* vec - test or set particular bits in a string

W

* wait - wait for any child process to die
* waitpid - wait for a particular child process to die
* wantarray - get void vs scalar vs list context of current subroutine call
* warn - print debugging info
* write - print a picture record

X

* -X - a file test (-r, -x, etc)

Y

* y - transliterate a string