

ANCHORS

^	Start of string or line in multi-line pattern
\A	Start of string
\$	End of string or line in multi-line pattern
\Z	End of string
\b	Word boundary
\B	Not word boundary
\<	Start of word
\>	End of word

CHARACTER CLASSES

\c	Control character
\s	White space
\S	Not white space
\d	Digit
\D	Not digit
\w	Word
\W	Not word
\x	Hexadecimal digit
\O	Octal digit

POSIX

[upper:]	Upper case letters
[lower:]	Lower case letters
[alpha:]	All letters
[alnum:]	Digits and letters
[digit:]	Digits
[xdigit:]	Hexadecimal digits
[punct:]	Punctuation
[blank:]	Space and tab
[space:]	Blank characters
[cntrl:]	Control characters
[graph:]	Printed characters
[print:]	Printed characters and spaces
[word:]	Digits, letters and underscore

ASSERTIONS

?=	Lookahead assertion
?!	Negative lookahead
?<=	Lookbehind assertion
?!= or ?<!	Negative lookbehind
?>	Once-only Subexpression
?()	Condition [if then]
?()	Condition [if then else]
?#	Comment

QUANTIFIERS

*	0 or more	{3}	Exactly 3
+	1 or more	{3,}	3 or more
?	0 or 1	{3,5}	3, 4 or 5

Add a ? to a quantifier to make it non-greedy.

GROUPS & RANGES

.	Any character except new line (\n)
(a b)	a or b
(...)	Group
(?:...)	Passive (non-capturing) group
[abc]	Range (a or b or c)
[^abc]	Not (a or b or c)
[a-q]	Lower case letter from a to q
[A-Q]	Upper case letter from A to Q
[0-7]	Digit from 0 to 7
\x	Group/subpattern number "x"

Ranges are inclusive.

PATTERN MODIFIERS

g	Global match
i *	Case-insensitive
m *	Multiple lines
s *	Treat string as single line
x *	Allow comments & whitespace in pattern
e *	Evaluate replacement
U *	Ungreedy pattern

* PCRE modifier

STRING REPLACEMENT

\$n	nth non-passive group
\$2	"xyz" in /^(abc(xyz))\$/
\$1	"xyz" in /^(?:abc)(xyz)\$/
\$`	Before matched string
\$'	After matched string
\$+	Last matched string
\$&	Entire matched string

Some regex implementations use \ instead of \$

COMMON METACHARACTERS

^	[.	\$
{	*	(\
+)		?
<	>		

The escape character is usually \

SPECIAL CHARACTERS

\n	New line
\r	Carriage return
\t	Tab
\v	Vertical tab
\f	Form feed
\xxx	Octal character xxx
\xhh	Hex character hh

HELPFUL RESOURCES

- [Regex Quickstart](#)
- [Simple Regex Cheat Sheet](#)
- [MIT Regex Cheat Sheet \(PDF\)](#)
- [regex101: build, test, and debug regex](#)