

# Perl Regular Expression Quick Reference 1.05

N.B.: this quick reference is just that - some of the explanations have been simplified. For the authoritative documentation, see the latest edition of *Programming Perl* or `perldoc perlre`.

## Specific characters:

<code>\t</code>	A tab character
<code>\n</code>	A newline character (OS neutral)
<code>\r</code>	A carriage return character
<code>\f</code>	A form feed character
<code>\cX</code>	Control character <b>CTRL-X</b>
<code>\NNN</code>	Octal code for character <b>NNN</b>

## Metacharacters:

The following 12 characters need to be escaped with a backslash - “\” - because by default, they mean something special.

`\ | ( ) [ { ^ $ * + ? .`

<code>.</code>	Match any one character (except <code>\n</code> )
<code> </code>	Alternation
<code>( )</code>	Group and capture
<code>[ ]</code>	Define character class
<code>\</code>	Modify the meaning of the next char.

## Anchors:

<code>^</code>	Match at the beginning of a string (or line)
<code>\$</code>	Match at the end of a string (or line)
<code>\b</code>	Match at a ‘word’ boundary
<code>\B</code>	Match at not a ‘word’ boundary

These are also known as *zero width assertions*.

## Quantifiers:

These quantifiers apply to the preceding *atom*.

<code>*</code>	Match 0 or more times
<code>+</code>	Match 1 or more times
<code>?</code>	Match 0 or 1 times
<code>{N}</code>	Match exactly <b>N</b> times
<code>{N,}</code>	Match at least <b>N</b> times
<code>{N,M}</code>	Match at least <b>N</b> but not more than <b>M</b> times

By default, quantifiers are “greedy”. They attempt to match as many characters as possible. In order to make them match as few characters as possible, follow them with a question mark “?”.

## Character class metacharacters:

<code>^</code>	If the first character of a class, negates that class
<code>-</code>	Unless first or last character of a class, used for a range

## Character class shortcuts:

<code>\d</code>	<code>[0-9]</code>	A digit
<code>\D</code>	<code>[^0-9]</code>	A non-digit
<code>\s</code>	<code>[\t\n\r\f]</code>	A whitespace char.
<code>\S</code>	<code>[^\t\n\r\f]</code>	A non-whitespace char.
<code>\w</code>	<code>[a-zA-Z0-9_]</code>	A ‘word’ char.
<code>\W</code>	<code>[^a-zA-Z0-9_]</code>	A ‘non-word’ char.

These shortcuts can be used either on their own, or within a character class.

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## Metaquote & case translations:

<code>\Q</code>	Quote (de-meta) characters until <code>\E</code>
<code>\U</code>	Uppercase characters until <code>\E</code>
<code>\L</code>	Lowercase characters until <code>\E</code>

## Special variables:

<code>\$`</code>	The characters to the left of the match
<code>\$&amp;</code>	The characters that matched
<code>\$'</code>	The characters to the right of the match
<code>\N</code>	The characters captured by the <b>N</b> <sup>th</sup> set of parentheses (if on the match side)
<code>\$N</code>	The characters captured by the <b>N</b> <sup>th</sup> set of parentheses (if not on the match side)

## Modifiers:

These modifiers apply to the entire pattern

<code>/i</code>	Ignore case
<code>/g</code>	Match globally (all)
<code>/m</code>	Let <code>^</code> and <code>\$</code> match next to embedded <code>\n</code>
<code>/s</code>	Let <code>.</code> match <code>\n</code>
<code>/x</code>	Ignore most whitespace and allow comments
<code>/e</code>	Evaluate right hand side of <code>s///</code> as an expression

All except `/e` apply to both `m//` and `s///`.

## Binding operators:

<code>=~</code>	True if the regex matches
<code>!~</code>	True if the regex doesn't match

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