A **regular expression** (shortened as **regex** or **regexp**;[[1]](https://en.wikipedia.org/wiki/Regular_expression#cite_note-1) also referred to as **rational expression**[[2]](https://en.wikipedia.org/wiki/Regular_expression#cite_note-Mitkov2003-2)[[3]](https://en.wikipedia.org/wiki/Regular_expression#cite_note-Lawson2003-3)) is a sequence of [characters](https://en.wikipedia.org/wiki/Character_(computing)) that specifies a [*search pattern*](https://en.wikipedia.org/wiki/Pattern_matching) in [text](https://en.wikipedia.org/wiki/String_(computer_science)). Usually such patterns are used by [string-searching algorithms](https://en.wikipedia.org/wiki/String-searching_algorithm) for "find" or "find and replace" operations on [strings](https://en.wikipedia.org/wiki/String_(computer_science)), or for input validation. It is a technique developed in [theoretical computer science](https://en.wikipedia.org/wiki/Theoretical_computer_science) and [formal language](https://en.wikipedia.org/wiki/Formal_language) theory.

The concept of regular expressions began in the 1950s, when the American mathematician [Stephen Cole Kleene](https://en.wikipedia.org/wiki/Stephen_Cole_Kleene) formalized the description of a [*regular language*](https://en.wikipedia.org/wiki/Regular_language). They came into common use with [Unix](https://en.wikipedia.org/wiki/Unix) text-processing utilities. Different [syntaxes](https://en.wikipedia.org/wiki/Syntax_(programming_languages)) for writing regular expressions have existed since the 1980s, one being the [POSIX](https://en.wikipedia.org/wiki/POSIX) standard and another, widely used, being the [Perl](https://en.wikipedia.org/wiki/Perl) syntax.

Regular expressions are used in [search engines](https://en.wikipedia.org/wiki/Search_engine), search and replace dialogs of [word processors](https://en.wikipedia.org/wiki/Word_processor) and [text editors](https://en.wikipedia.org/wiki/Text_editor), in [text processing](https://en.wikipedia.org/wiki/Text_processing) utilities such as [sed](https://en.wikipedia.org/wiki/Sed) and [AWK](https://en.wikipedia.org/wiki/AWK) and in [lexical analysis](https://en.wikipedia.org/wiki/Lexical_analysis). Many [programming languages](https://en.wikipedia.org/wiki/Programming_language) provide regex capabilities either built-in or via [libraries](https://en.wikipedia.org/wiki/Library_(computing)), as it has uses in many situations.

https://www.youtube.com/watch?v=rhzKDrUiJVk&ab\_channel=WebDevSimplified

<https://regex101.com/>

<https://regexone.com/lesson/wildcards_dot>?

<https://www.w3schools.com/python/python_regex.asp>