

Definition: The length of a regular expression is defined as follows: Consider a regular expression R .

- If $R = a$, where a is a single character, then $|R| = 1$.
- If $R = \varepsilon$, then $|R| = 0$.
- If $R = R_1R_2$, the concatenation of regular expressions R_1 and R_2 , then $|R| = |R_1| + |R_2|$.
- If $R = R_1^*$, the star of the regular expression R_1 , then $|R| = |R_1|$.
- If $R = R_1 \cup R_2$, the union of regular expressions R_1 and R_2 , then $|R| = \max(|R_1|, |R_2|)$.