

Regex

$(ab+a)b$ matches abb or ab

ab^*ab matches any string ab^nab

$$L(ab^*ab) = \{ ab^nab \mid n \in \mathbb{N} \}$$

$(a+b^2)^*$ matches things consisting of a 's & b^2 's.

e.g. $ab^2aaab^2b^2a$

On Mac/Linux use grep or egrep

Windows: findstr /r

egrep " ~ " filename
 ↑
 regex

Searches the file, prints every line with
a substring matching the regex.

OR is "|"

Shortcuts: . matches any single character

^ matches the start of the line

\r matches the end of the line

S T A R E
 F R I E D → in the right spot

4 spot has e,
 r in 1st, 3rd, 5th

$[^a]$ matches anything except a

$[^a b r z]$ - - - - - a, b, r, z

C H E E R

$\{a^n b a\}$ $a^* b a$

$\{a^n b a \mid n > 0\}$ $a a^* b a$

$\{a^n b a \mid n \leq 2\}$ $(\epsilon + a + a^2) b a$

$\Sigma = \{a, b\}$

$\{x \mid x \text{ ends with } b\}$ $(a+b)^*$ b

$\{x \mid x \text{ starts with } a \text{ \& \; ends with } ba\}$ $a(a+b)^* b a$

$\{x \mid x \text{ contains } ba\}$ $(a+b)^* b a (a+b)^*$

$\{x \mid x \text{ contains exactly 3 a's}\}$
 $b^* a b^* a b^* a b^*$