## Commonly Used Regular Expressions

Regular Expression	Matches	Example
•	any single character	Java matches Ja
(ab cd)	ab or cd	ten matches t(en im)
[abc]	a, b, or c	Java matches Ja[uvwx]a
[^abc]	any character except a, b, or c	Java matched Ja[^ars]a
[a-z]	a through z	Java matches [A-M]av[a-d]
[^a-z]	any character except ${\tt a}$ through ${\tt z}$	Java matches J]av[^b-d]
[a-e[m-p]]	a through e or m through p	Java matches [A-G[I-M]]av[a-d]
[a-e&&[c-p]]	intersection of a-e with c-p	Java matches [A-P&&[I-M]]av[a-d]
\d	a digit, same as [0-9]	$Java2 matches "Java[\d]"$
\D	a non-digit	$\Delta = \frac{(\D] [\D] ava}$
$\setminus \mathtt{w}$	a word character	${\tt Java1\ matches\ ``[/w]ava[/w]"}$
$\setminus W$	a non-word character	$\sigma = \max (-\ V\ ) = 1$
\s	a whitespace character	"Java 2" matches "Java $\slash$ s2"
\S	a non-whitespace character	Java $matches$ "[ $\S$ ] ava"
<i>p*</i>	zero or more occurrences of pattern $p$	aaaabb matches "a*bb"
		ababab matches "(ab)*"
<i>p</i> +	one or more occurrences of pattern $p$	a matches "a+b*"
		able matches "(ab)+.*"
b ś	zero or one occurrence of pattern $p$	Java matches "J?Java"
		Java matches "J?ava"
m[m]	exactly ${\tt n}$ occurrences of pattern ${\tt p}$	Java matches "J{1}.*"
$p\{n\}$		Java does not match " $.{2}$ "
$p\{n,\}$	at least <b>n</b> occurrences of pattern $p$	aaaa matches "a{1,}"
		a does not match "a{2,}"
$p\{n, m\}$	between ${\tt n}$ and ${\tt m}$ occurrences (inclusive)	aaaa matches "a{1,9}"
		abb does not match "a $\{2,9\}$ bb"