

Searching text files - grep

```
grep -F options string file1 file2 ...  
grep options regexp file1 file2 ...  
grep -E options eregexp file1 file2 ...  
egrep options eregexp file1 file2 ...
```

Interesting options: `-i` — ignore case, `-n` — print line numbers, `-v` — search for lines **without** matches, `-h` — do not print file name (when searching multiple files). **Important:** there are two versions of grep on babbage.

Regular expressions in vim and less

Search: `/<regexp> ↵`

Search backward: `?<regexp> ↵`

Substitute (vim only): `:<range>s/<regexp>/<string>/<options> ↵`

Regular expressions

Matches	vi	vim	grep	egrep	sed	awk
any character
zero or more preceding	*	*	*	*	*	*
beginning of line	^	^	^	^	^	^
end of line	\$	\$	\$	\$	\$	\$
match one from a set	[]	[]	[]	[]	[]	[]
escape following character	\	\	\	\	\	\
store pattern	\(\)	\(\)	\(\)		\(\)	
match a range of instances		\{ }	\{ \}	{ }	\{ \}	{ }
one or more preceding		\+		+		+
zero or one preceding		\=		?		?
group expression to match				()		()
choices to match		\				
match word beginning	\<	\<				
match word end	\>	\>				
text matched by <i>n</i> -th \(\ \)	\n	\n	\n		\n	
the whole matched text	&	&			&	
previous replacement patt	~	~				
uppercase next character	\u	\u				
uppercase next characters	\U \E	\U \E				

Measuring file size - `wc`

`wc options file1 file2 ...` prints file sizes (and total). `wc` is capable of printing character, word and line counts. See documentation for full description.

Sorting files - `sort`

Can sort lines in a file alphabetically or based on numerical values. It's possible to tell `sort` to select parts of a line as a "key" for sorting. `sort` can also eliminate duplicate lines (or lines with duplicate "keys"). See documentation for full description.

Batched text file processing - `sed`

`sed` is good for writing scripts that do simple file editing operations automatically. `sed` can do substitutions (including the ones with regular expressions), add and delete lines in particular places in the file, *etc.* See documentation for full description.