

Bash Scripting

Computing

Variables, tests and loops, plus the two lines to start every script.

POSIX-ish bash. Quoting rules are the whole game.

Header

```
#!/usr/bin/env bash
```

```
set -euo pipefail
```

```
-e exit on error
```

```
-u error on unset variable
```

```
-o pipefail catch errors in pipes
```

Variables

```
name="value" – no spaces around =
```

```
"$name" – always quote
```

```
"${arr[@]}" – all array elements
```

```
$(cmd) – command substitution
```

```
"${1:-default}" – fallback
```

Tests

```
[[ -f file ]] – exists
```

```
[[ -z "$x" ]] – empty
```

```
[[ "$a" == "$b" ]]
```

```
(( n > 3 )) – arithmetic
```

Loops

```
for f in *.txt; do ... done
```

```
while read -r line; do ... done
```

```
case "$x" in a) ;; esac
```

Use `[[ ]]` rather than `[ ]`. It handles empty variables and does not need as much quoting inside.