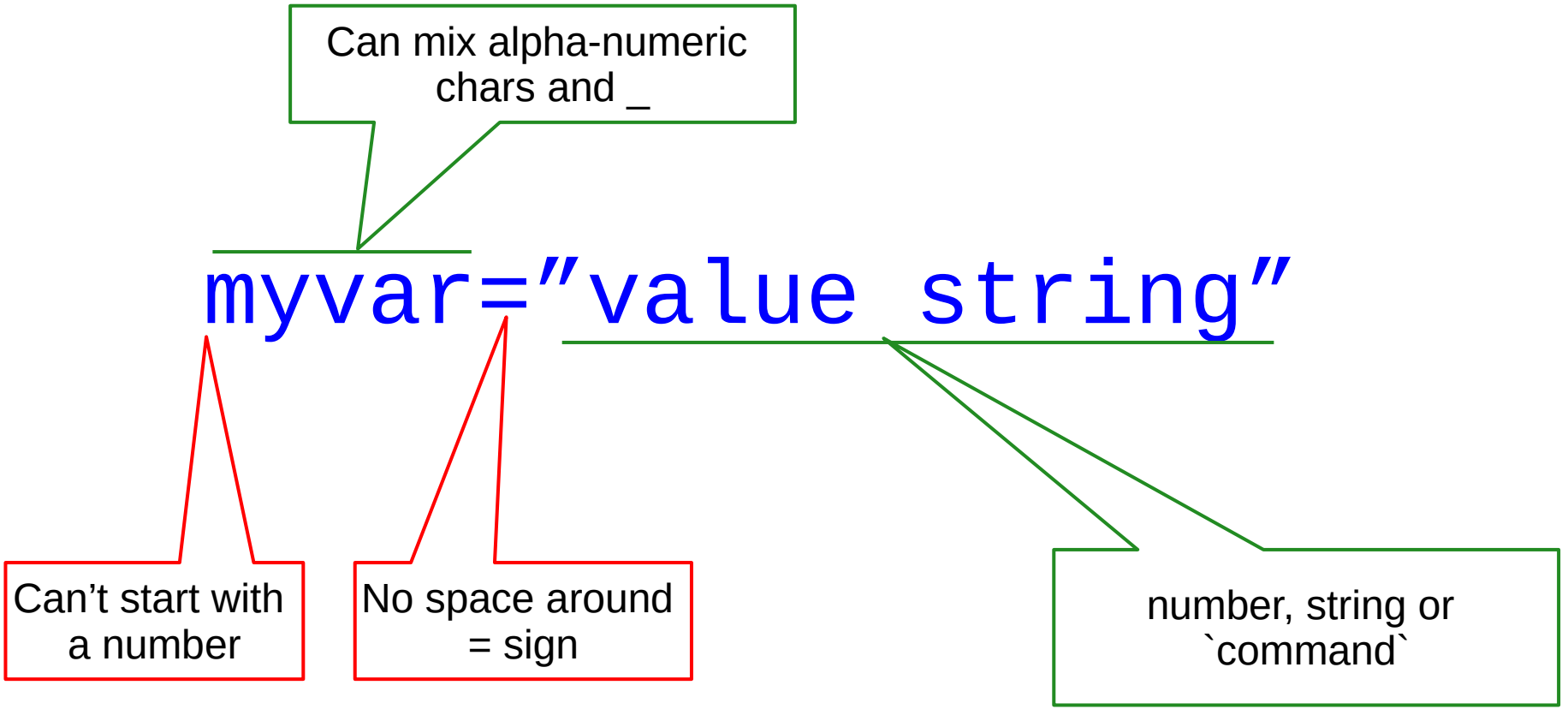
Shell variables

Creation, inspection, modification, lists...

Creating a variable



Exporting a variable

```
export myvar=”value string”
              or
myvar=”value string”
export myvar
```

Using variable values

```
echo $myvar
echo ${myvar}

echo “${myvar}_something”
```

Removing a variable

```
unset myvar
```

Removing value of a variable

```
myvar=
```

Test if a variable is set

```
[[ -v myvar ]];
echo $?
```

Return codes:

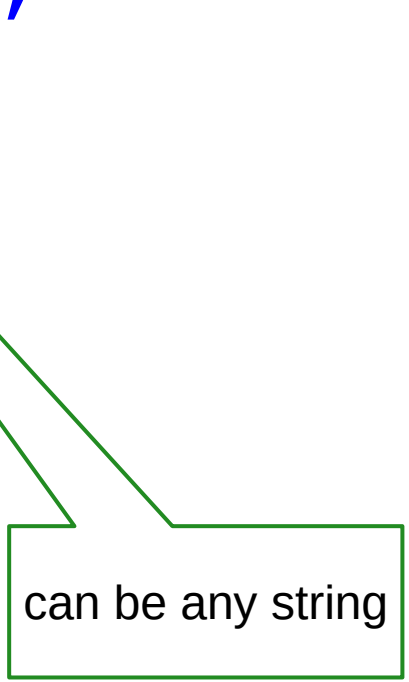
0 : success (variable myvar is set)
1 : failure (variable myvar is not set)

Test if a variable is *not* set

```
[[ -z ${myvar+x} ]];
echo $?
```

Return codes:

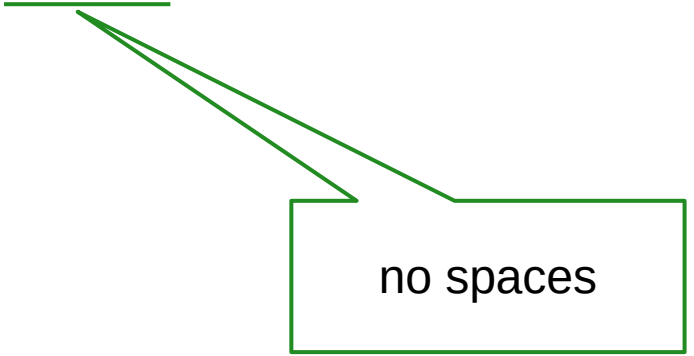
0 : success (variable myvar is not set)
1 : failure (variable myvar is set)



Substitute default value

If the variable myvar is not set, use “default” as its default value

```
echo ${myvar:-”default”}
```

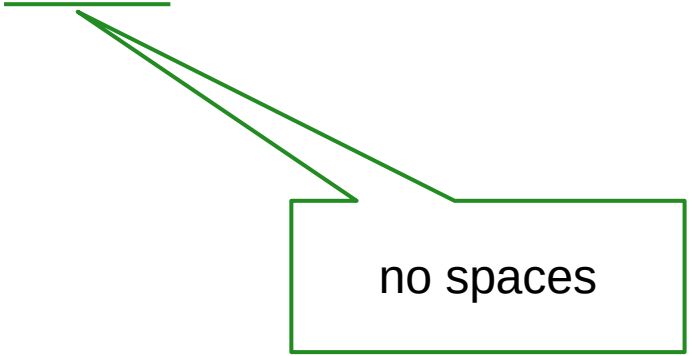


if myvar is set:
    display its value
else:
    display “default”

Set default value

If the variable myvar is not set, then set “default” as its value

```
echo ${myvar:=”default”}
```

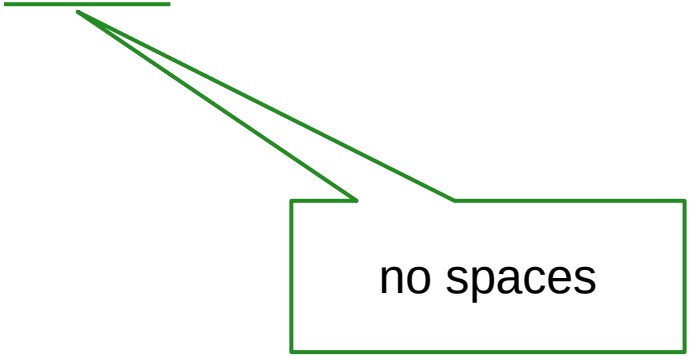


if myvar is set:
    display its value
else:
    set “default” as its value
    display its new value

Reset value if variable is set

If the variable myvar is set, then set “default” as its value

```
echo ${myvar:+”default”}
```



if myvar is set:
    set “default” as its value
    display its new value
else:
    display null

List of variable names

```
echo ${!H*}
```

List of names of shell
Variables that start with H

Length of string value

```
echo ${#myvar}
```

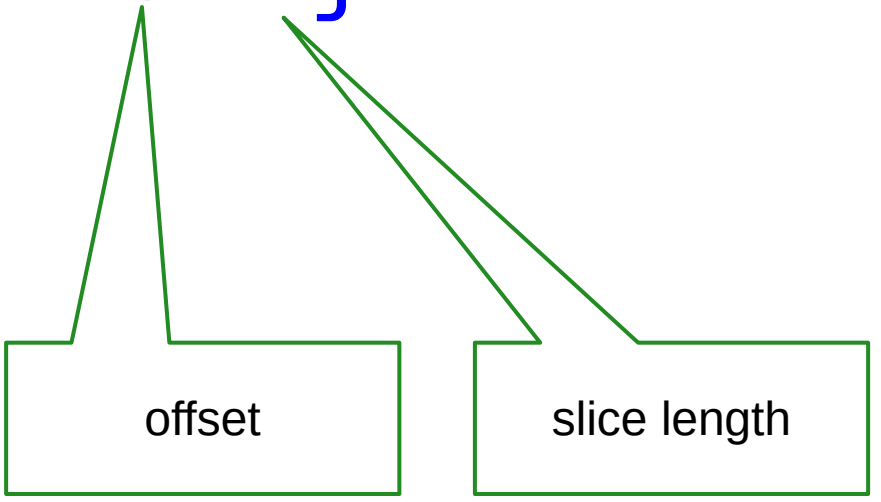
Display length of the string value
of the variable myvar

If myvar is not set, display 0

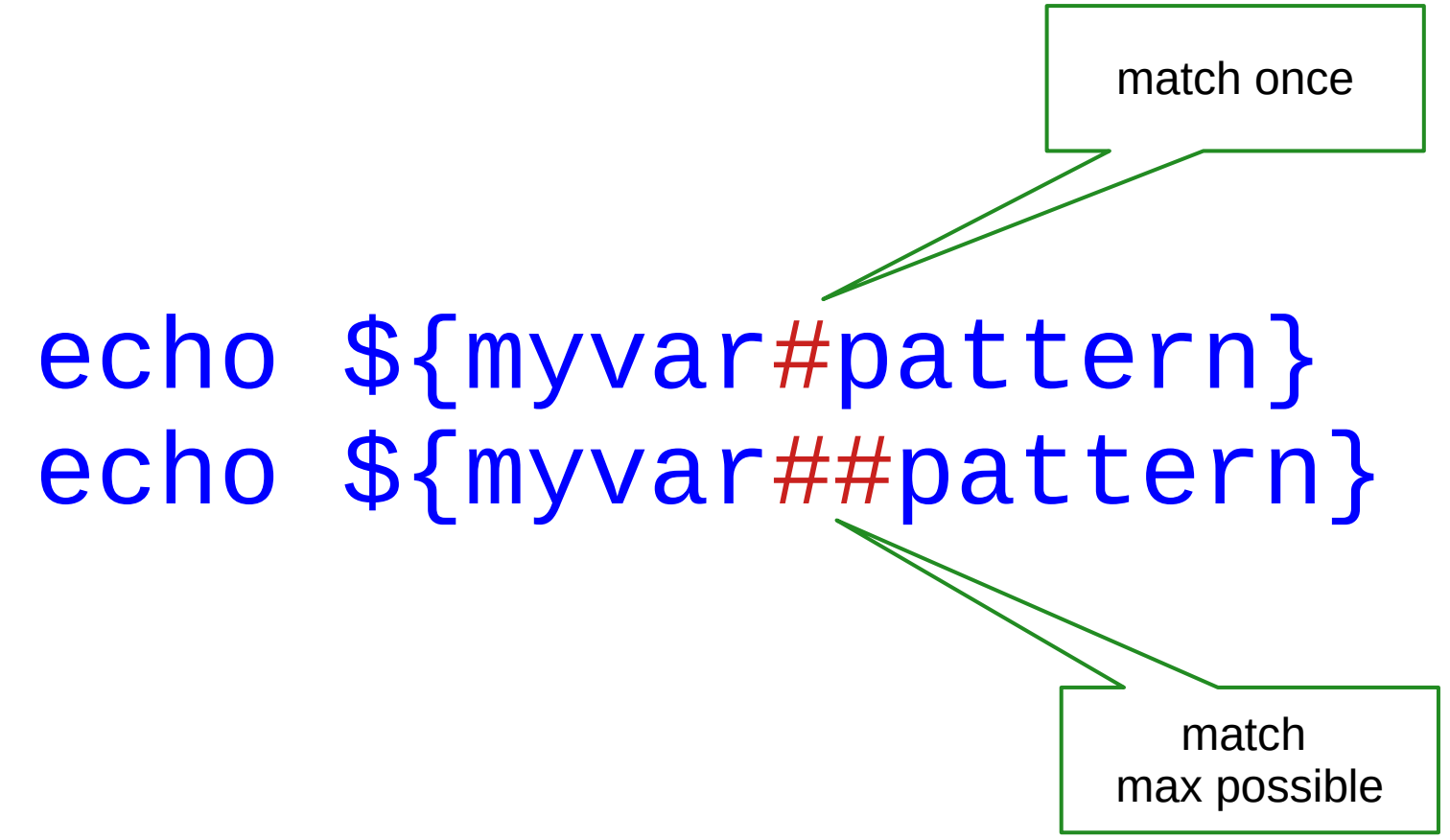
Slice of string value

```
echo ${myvar:5:4}
```

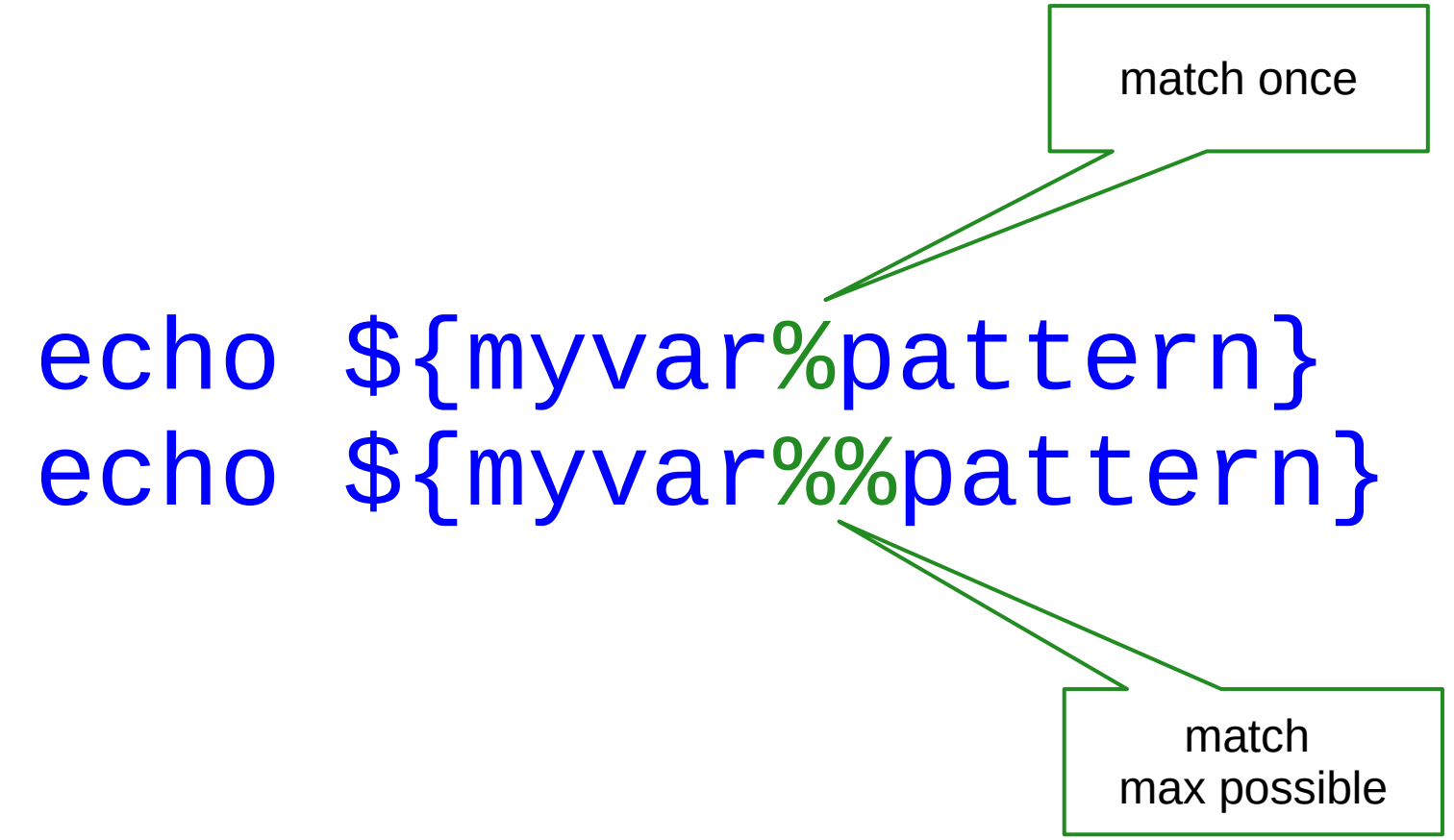
Display 4 chars of the string value of the variable myvar skipping first 5 chars



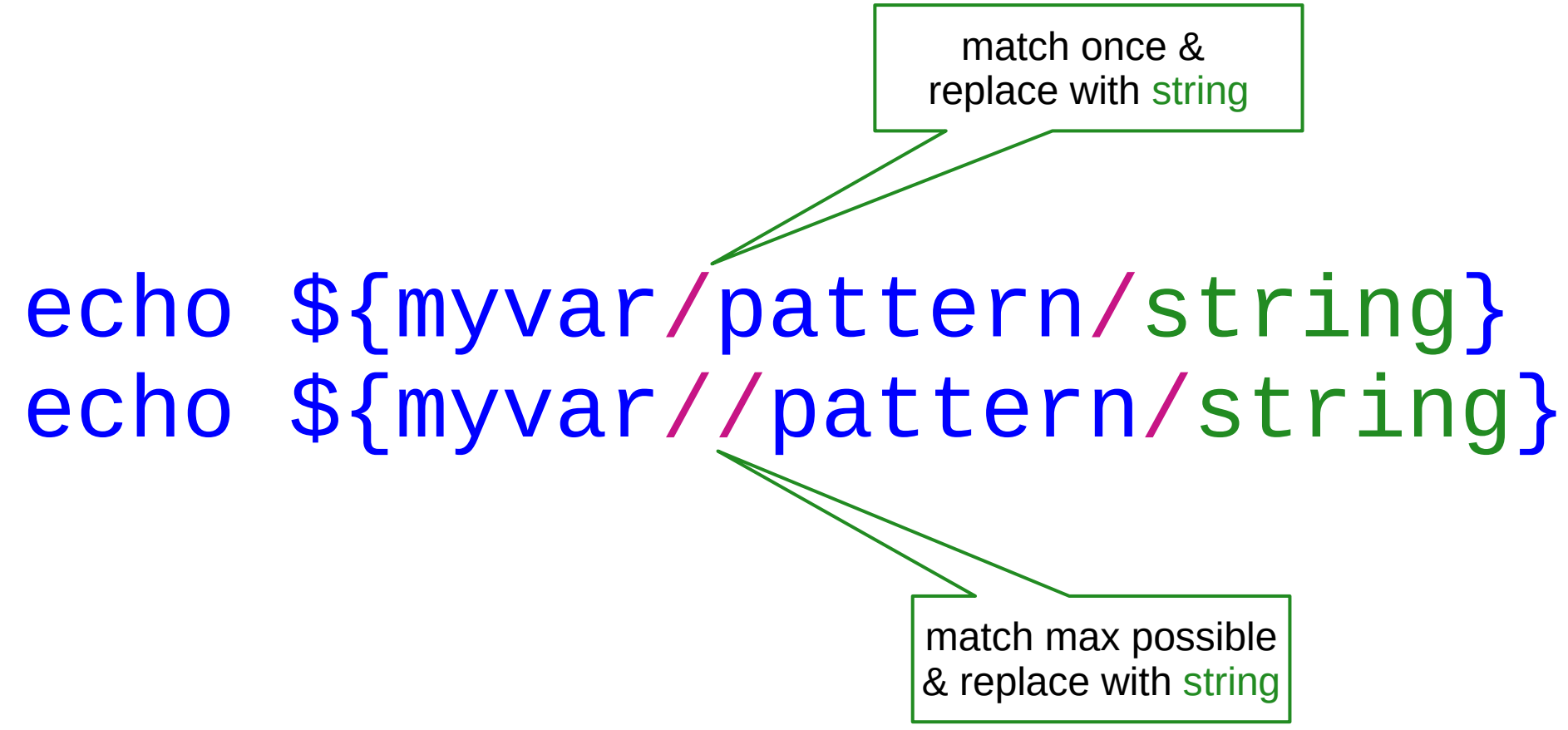
Remove matching pattern



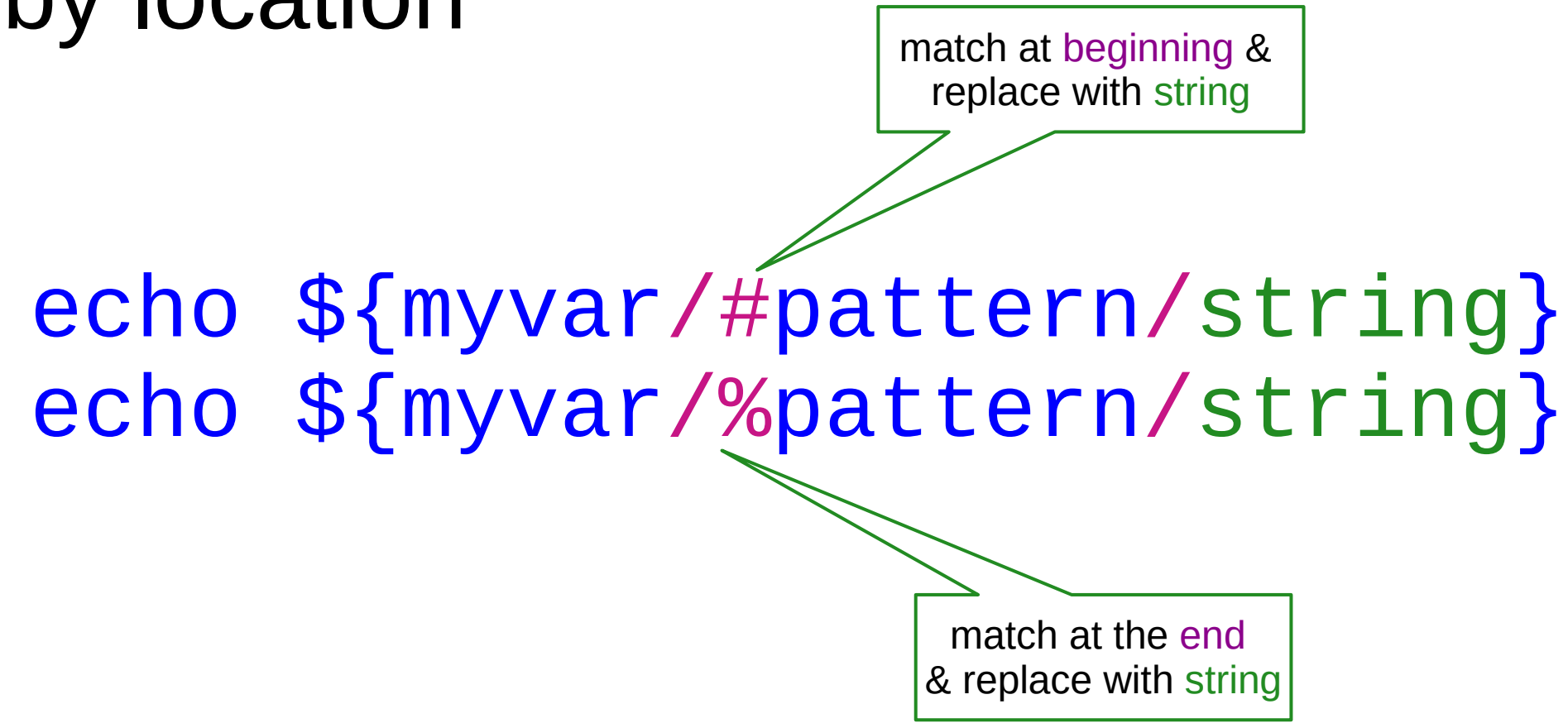
Keep matching pattern



Replace matching pattern



Replace matching pattern by location



Changing case

```
echo ${myvar,}
echo ${myvar,,}
```

Change first char to lower case

Change all chars to lower case

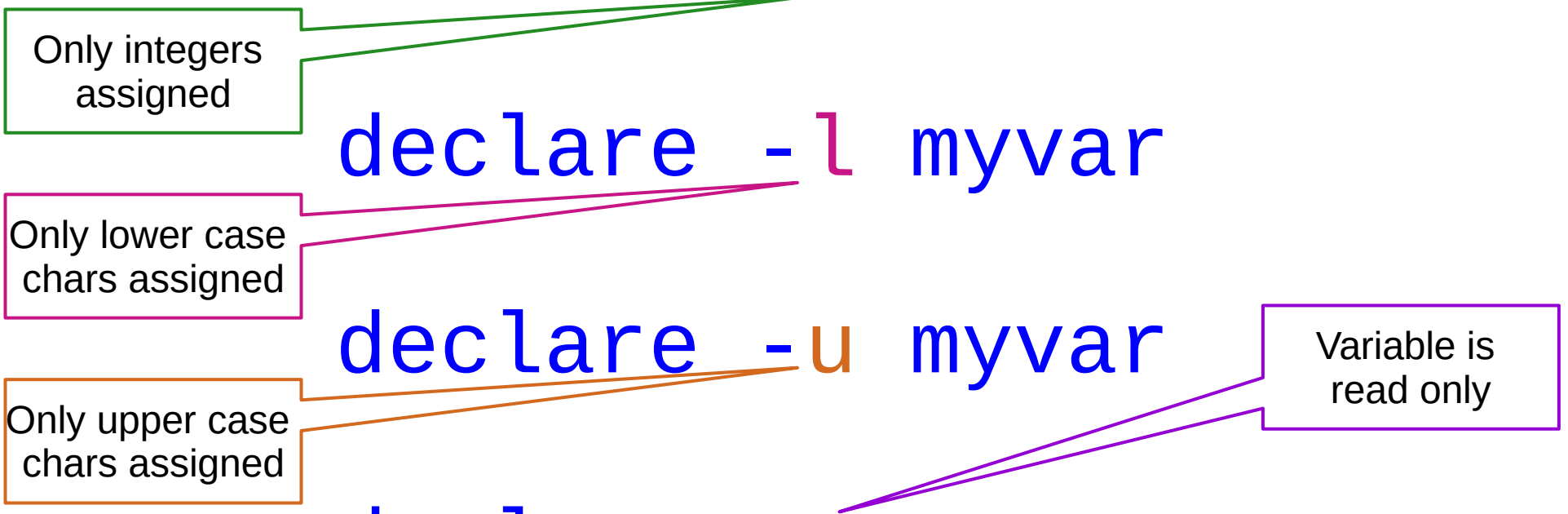
```
echo ${myvar^}
echo ${myvar^^}
```

Change first char to upper case

Change all chars to upper case

Restricting value types

```
declare -i myvar
declare -l myvar
declare -u myvar
declare -r myvar
```



Removing restrictions

```
declare +i myvar
declare +l myvar
declare +u myvar
declare +r myvar
```

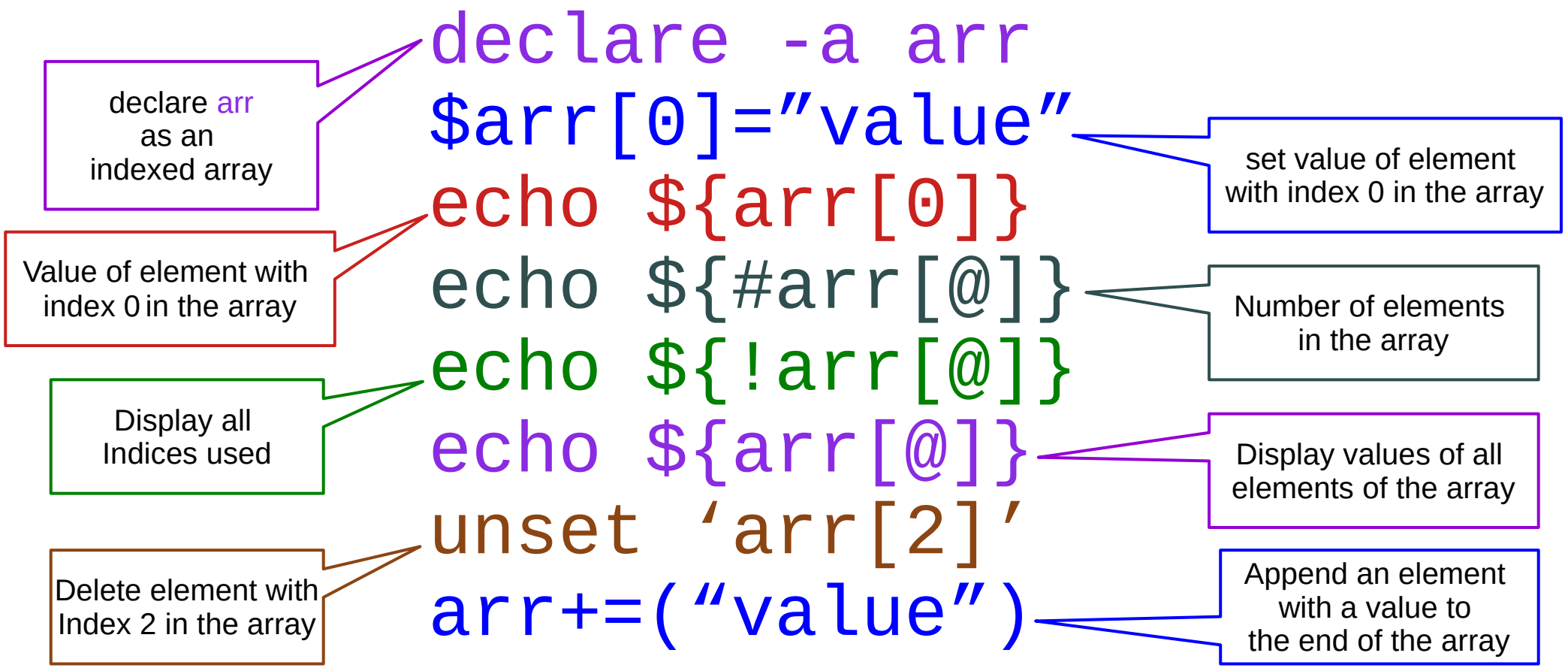
integer restriction removed

lower case restriction removed

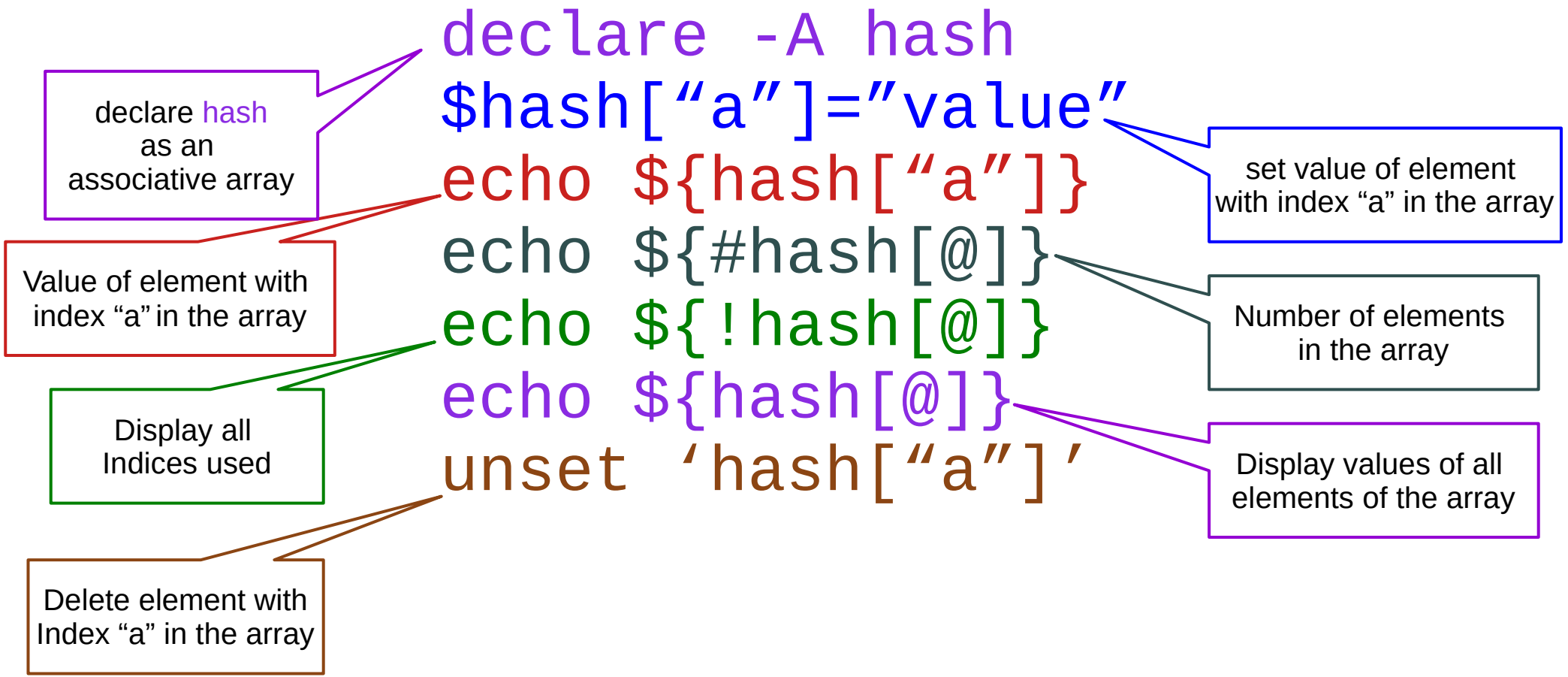
upper case restriction removed

Can't do once it is read only

Indexed arrays



Associative arrays



Shell variable manipulations are fast !