# Subtract_object

AI Casas

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Subsetting objects

```
x <- c("b", "a", "z", "e")
x[1:4]
```

```
## [1] "b" "a" "z" "e"
```

```
x[x>1]
```

```
## [1] "b" "a" "z" "e"
```

```
x[x>"a"]
```

```
## [1] "b" "z" "e"
```

```
u <- x>"a"
x[u]
```

```
## [1] "b" "z" "e"
```

```
x>"a"
```

```
## [1]  TRUE FALSE  TRUE  TRUE
```

subsetting lists

First, run the list

```
x <- list(foo = 1:4, bar = 3)
x
```

```
## $foo
## [1] 1 2 3 4
##
## $bar
## [1] 3
```

Extract the first element of the list

```r
x[1]
```

```
## $foo
## [1] 1 2 3 4
```

```r
x[[1]]
```

```
## [1] 1 2 3 4
```

```r
x[2]
```

```
## $bar
## [1] 3
```

```r
x["bar"]
```

```
## $bar
## [1] 3
```

```r
x[["bar"]]
```

```
## [1] 3
```

```r
x$bar
```

```
## [1] 3
```

```r
x$foo
```

```
## [1] 1 2 3 4
```

Subset several elements from a list

```r
m <- list(foo = 1:4, bar = 3, baz = "a")
m
```

```
## $foo
## [1] 1 2 3 4
##
## $bar
## [1] 3
##
## $baz
## [1] "a"
```

```r
m[c(1,3)]
```

```
## $foo
## [1] 1 2 3 4
##
## $baz
## [1] "a"
```

```
m$foo
```

```
## [1] 1 2 3 4
```

Con el dolar puedes sacar directamente un elemento de una lista con el nombre

Sacar elementos dentro de una lista que tenga otra lista incluida

```
w <- list(list(1,3,89), b = "r")
w[[c(1,2)]]
```

```
## [1] 3
```

```
w[2]
```

```
## $b
## [1] "r"
```

Matrix

```
q <- matrix(1:6, 2, 3)
q
```

```
##      [,1] [,2] [,3]
## [1,]    1    3    5
## [2,]    2    4    6
```

```
q[2,3]
```

```
## [1] 6
```

```
q[1,]
```

```
## [1] 1 3 5
```

```
w <- list(aaverter = 1:5)
w
```

```
## $aaverter
## [1] 1 2 3 4 5
```

```
w$a
```

```
## [1] 1 2 3 4 5
```