

R Programming Notes

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Week 1

Subsetting

There are three subsetting commands: “[”], “[[” and “\$ ”.

- “[” always returns an object of the same class and allows you to subset multiple elements from an object.
- “[[” extracts elements from a list or data.frame.
- “\$ ” extracts elements from a list or data.frame by name specifically.

Note: “[[” can be used to extract with a *computed* indices, whereas “\$ ” can only subset by name.

```
x <- list(foo = 1:4, bar = 0.6, baz = "hello")
name <- "foo"
x[[name]]
```

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

```
x$name
```

```
## NULL
```

```
x$foo
```

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

Note Subsetting a matrix with [default behavior returns a vector of the subset (dimensions are lost). To prevent this behavior, set “drop = false”.

```
x <- matrix (1:6, 2, 3)
x[1,]
```

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

```
x[1, , drop = F]
```

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