

Introduction to R, Revisited

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R as a Calculator

Basic math

```
1 + 1
```

```
## [1] 2
```

```
1 - 1
```

```
## [1] 0
```

```
1 * 2
```

```
## [1] 2
```

```
4 / 2
```

```
## [1] 2
```

```
(1 + 2 + 3 + 4) / 4
```

```
## [1] 2.5
```

Assignment operators

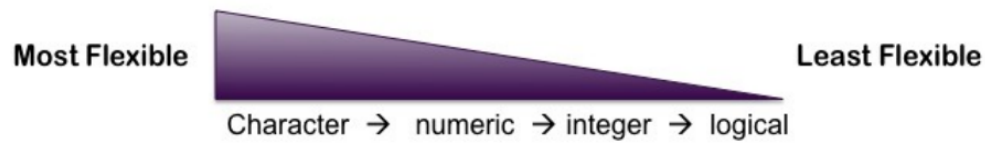
```
x <- 1:50  
x
```

```
## [1] 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
## [24] 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46  
## [47] 47 48 49 50
```

```
# this is the same, but discouraged as it may be confusing.  
x = 1:50
```

Data Structures

Data structures in R are organized by their dimensionality (Wickham 2014). `## Vectors`



```
# If the user types this, R will treat it as a comment
x <- c(1, 2, 3)
integer_vector <- c(1L, 2L, 12L, 29L)
integer_vector
```

```
## [1] 1 2 12 29
```

```
logical_vector <- c(T, TRUE, F, FALSE)
logical_vector
```

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

```
character_vector <- c("Apple", "Pear", "Red", "Green", "These are my favorite fruits and colors")
character_vector
```

```
## [1] "Apple"
## [2] "Pear"
## [3] "Red"
## [4] "Green"
## [5] "These are my favorite fruits and colors"
```

```
numeric_vector <- c(1, 3.4, 5, 10)
numeric_vector
```

```
## [1] 1.0 3.4 5.0 10.0
```

Wickham, Hadley. 2014. *Advanced R*. CRC Press.