

## start\_2\_R\_basics

In R, an object is anything that can be assigned to a variable. This includes constants, data structures, functions, and even graphs. Objects have a mode (which describes how the object is stored) and a class (which tells generic functions like print how to handle it).

Vectors are one-dimensional arrays that can hold numeric data, character data, or logical data. The combine function `c()` is used to form the vector.

```
x <- c(1,2,4) #The "c" stands for "concatenate."
x
```

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

```
q <- c(x,x,8)
q
```

```
## [1] 1 2 4 1 2 4 8
```

```
#
a <- c(1, 2, 5, 3, 6, -2, 4)
b <- c("one", "two", "three")
c <- c(TRUE, TRUE, TRUE, FALSE, TRUE, FALSE)
```

Seen Above -- a is numeric vector, b is a character vector, and c is a logical vector. Note that the data in a vector must only be one type or mode (numeric, character, or logical). You can't mix modes in the same vector.

Indexing vectors -

```
#
a_idx_1_3 <- a[c(1:3)]
```

```
a_idx_1_3 <- a[c(1:3)]
a_idx_1_3
```

```
## [1] 1 2 5
```

```
print(a_idx_1_3)
```

```
## [1] 1 2 5
```

```
# x <- c(1,3,4) #The "c" stands for "concatenate."
```

```
# x
```

```
# q <- c(x,x,8)
```

```
# q
```

```
x <- c(1,3,4) #The "c" stands for "concatenate."
```

```
x
```

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

```
q <- c(x,x,8)
```

```
q
```

```
## [1] 1 3 4 1 3 4 8
```

```
x <- c(1,7,4) #The "c" stands for "concatenate."
```

```
x
```

```
## [1] 1 7 4
```

```
q <- c(x,x,8)
```

```
q
```

```
## [1] 1 7 4 1 7 4 8
```

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