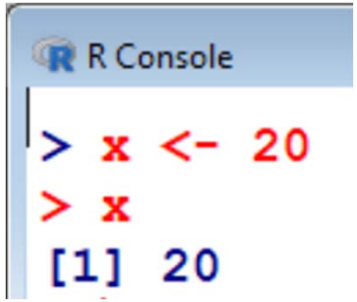
Basics

`>` is the prompt sign in R.

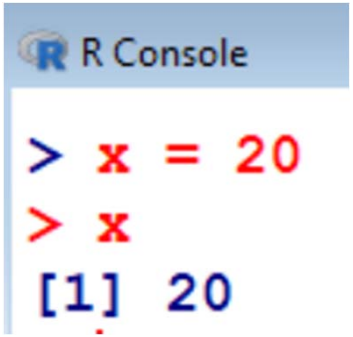
The assignment operators are the left arrow with dash `<-`

and equal sign `=`.

`> x <- 20` assigns the value 20 to `x`.



`> x = 20` assigns the value 20 to `x`.

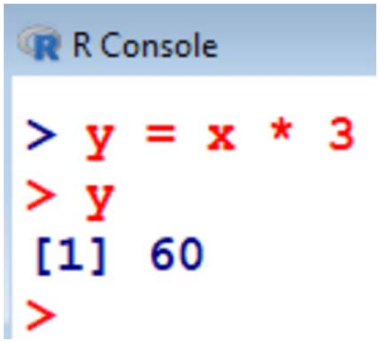


Initially only `<-` was available in R.

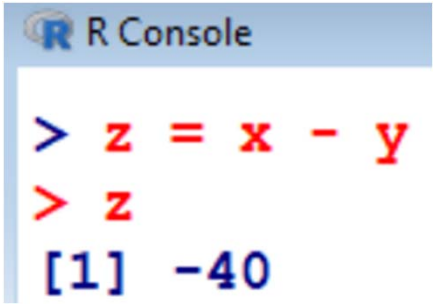
Basics

`> x = 20` assigns the value 20 to `x`.

`> y = 3 * x` assigns the value `3 * x` to `y`.



`> z = x - y` assigns the value `x - y` to `z`.



Basics

The command `c(1,2,3,4)` combines the numbers 1,2,3 and 4 to a vector.

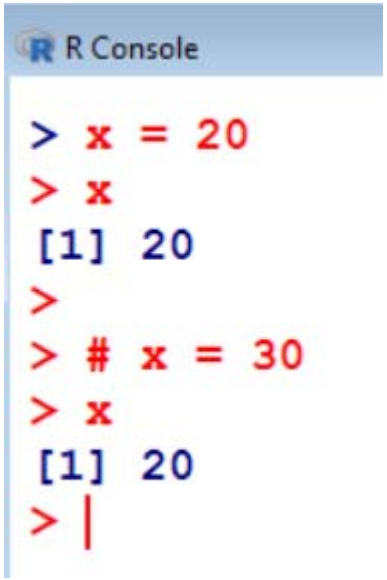
Basics

`#` : The character # marks the beginning of a comment.

All characters until the end of the line are ignored.

`> # mu` is the mean

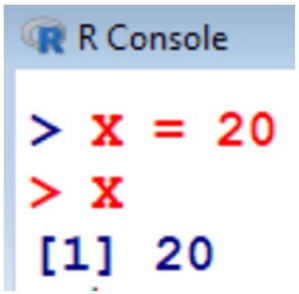
`> # x = 20` is treated as comment only

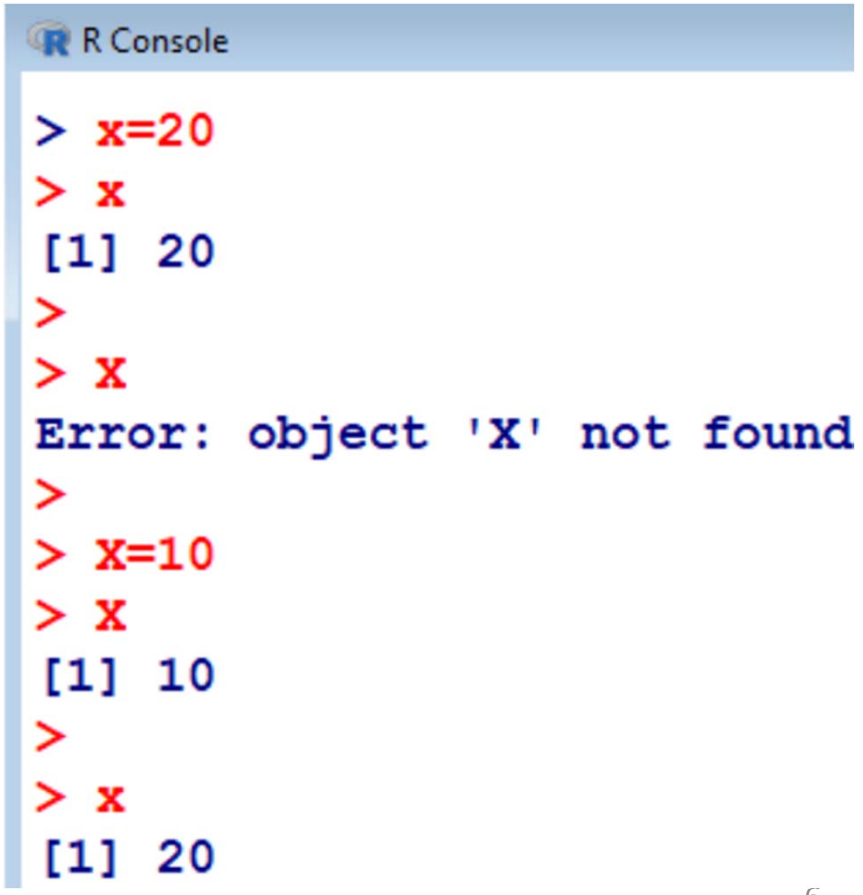


Basics

Capital and small letters are different.

`> X = 20` and `> x = 20` are different

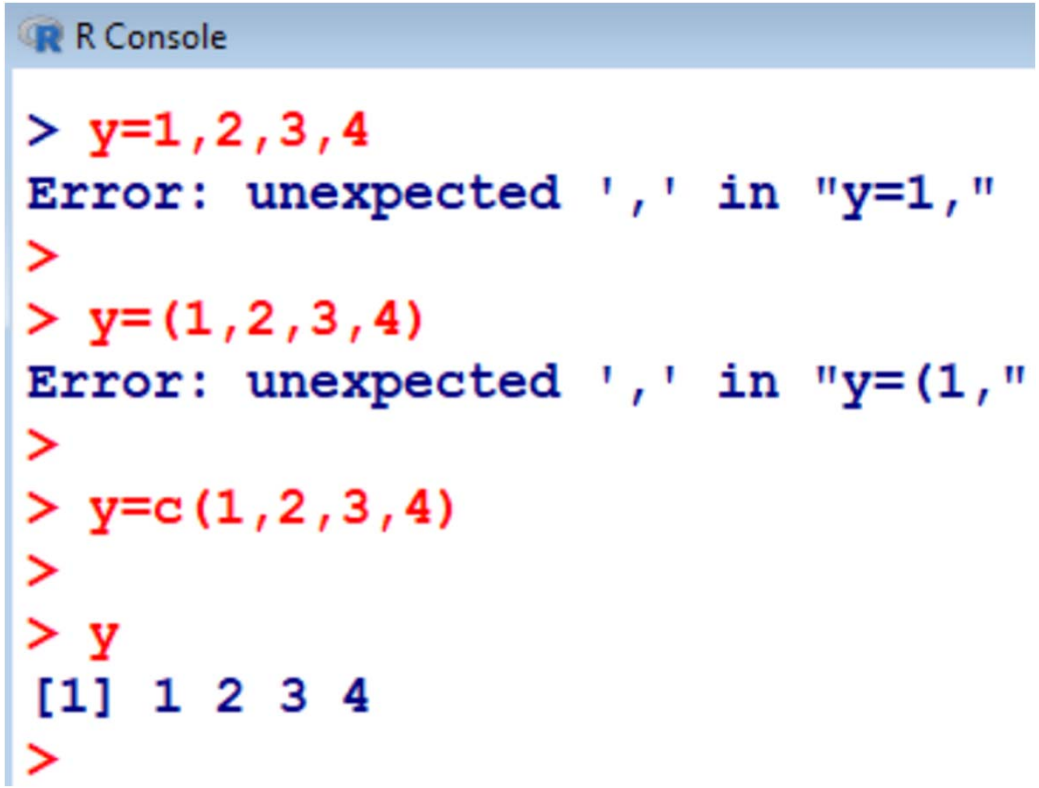




Basics

The command `c(1,2,3,4)` combines the numbers 1,2,3 and 4 to a vector.

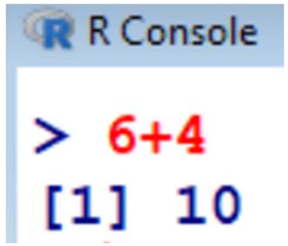
The command `c(1,2,3,4)` combines the numbers 1,2,3 and 4 to a vector.



R as a calculator

Addition

```
> 6+4          # Command
[1] 10         # Output
```



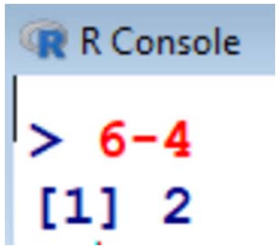
Multiplication

```
> 6*4          # Command
[1] 24         # Output
```

R as a calculator

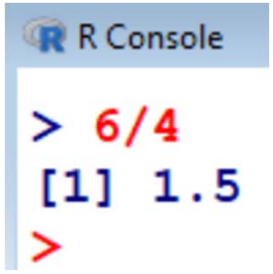
Subtraction

```
> 6-4          # Command
[1] 2          # Output
```



Division

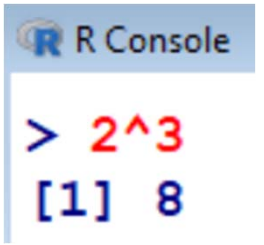
```
> 6/4          # Command
[1] 1.5        # Output
```



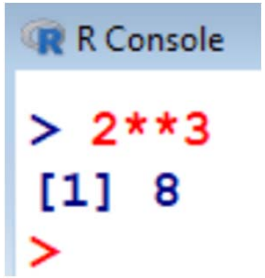
R as a calculator

Power

```
> 2^3              # Command
[1] 8              # Output
```




```
> 2**3             # Command
[1] 8              # Output
```

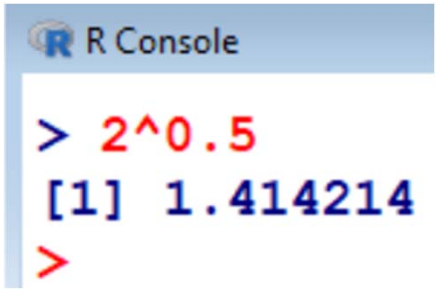


2^3

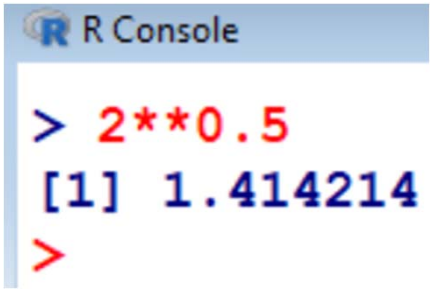
R as a calculator

Power

```
> 2^0.5          # Command
[1] 1.732051     # Output
```




```
> 2**0.5         # Command
[1] 1.732051     # Output
```

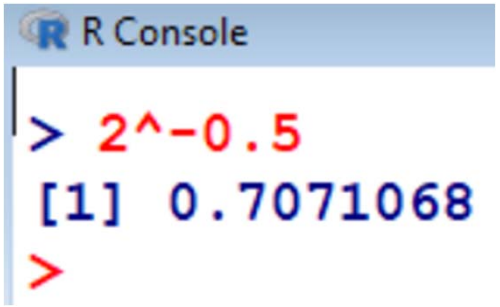


$2^{1/2}$

R as a calculator

Power

```
> 2^-0.5        # Command
[1] 0.5773503 # Output
```



$2^{-1/2}$

Multiple operators (BODMAS)

Bracket, Of, Division, Multiplication, Addition, and Subtraction

```
> 5+6-7*2+3/4   # Command
[1] -2.25         # Output
```