Introdução ao uso do knitr

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Definindo a variável aleatória X com distribuição Normal padrão, ou seja, $X \sim \mathrm{N}(0, 1)$

```
set.seed(1)
(x <- rnorm(10))

##  [1] -0.6265  0.1836 -0.8356  1.5953  0.3295 -0.8205  0.4874  0.7383
##  [9]  0.5758 -0.3054
```

A média desta variável aleatória é 0.1322. O primeiro valor é $X_1 = -0.6265$.

```
rnorm(10)
```

```
set.seed(1)
rbeta(10, 2, 5)

##  [1] 0.1755 0.3243 0.1456 0.3570 0.1477 0.3944 0.4582 0.2280 0.6757 0.3710
##  [1] -0.62124 -2.21470  1.12493 -0.04493 -0.01619  0.94384  0.82122
##  [8]  0.59390  0.91898  0.78214

rgamma(10, 2, 5)

##  [1] 0.31854 0.77153 0.62490 0.15462 0.19431 0.24504 0.27535 0.16200
##  [9] 0.05751 0.59225
```

Testando mais opções de chunks.

```
> rnorm(10)

 [1]  1.15654  0.83205 -0.22733  0.26614 -0.37670  2.44136 -0.79534
 [8] -0.05488  0.25014  0.61824
```

```
rnorm(10)
##  [1] -0.17262 -2.22390 -1.26361  0.35873 -0.01105 -0.94065 -0.11583
##  [8] -0.81497  0.24226 -1.42510
```

```
rnorm(10, 10, 5)

##  [1] 11.830 11.242 10.326 10.096 11.287  6.755  9.404 13.321 15.505 10.719
```

```
rnorm(10,
      10, 5)

##  [1]  9.411  5.440  2.812  6.015 16.270 13.861  8.902  7.876  7.905 14.985
```

Trabalhando com tabelas.

```
## Carrega o pacote
require(xtable, quietly = TRUE)
## Tira uma amostra de 10 linhas da base de dados Iris
am <- sample(1:nrow(iris), size = 10)
iris.am <- iris[am, ]
```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
59	6.60	2.90	4.60	1.30	versicolor
57	6.30	3.30	4.70	1.60	versicolor
133	6.40	2.80	5.60	2.20	virginica
95	5.60	2.70	4.20	1.30	versicolor
109	6.70	2.50	5.80	1.80	virginica
88	6.30	2.30	4.40	1.30	versicolor
131	7.40	2.80	6.10	1.90	virginica
43	4.40	3.20	1.30	0.20	setosa
28	5.20	3.50	1.50	0.20	setosa
125	6.70	3.30	5.70	2.10	virginica

A tabela abaixo é a tabela de número 1.

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
76	6.60	3.00	4.40	1.40	versicolor
131	7.40	2.80	6.10	1.90	virginica
29	5.20	3.40	1.40	0.20	setosa
112	6.40	2.70	5.30	1.90	virginica
106	7.60	3.00	6.60	2.10	virginica
137	6.30	3.40	5.60	2.40	virginica
79	6.00	2.90	4.50	1.50	versicolor
102	5.80	2.70	5.10	1.90	virginica
56	5.70	2.80	4.50	1.30	versicolor
15	5.80	4.00	1.20	0.20	setosa

Tabela 1: Uma legenda para a tabela.

Essa é a tabela 2 com legenda em cima.

Tabela 2: Uma legenda para a tabela.

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
140	6.90	3.10	5.40	2.10	virginica
43	4.40	3.20	1.30	0.20	setosa
88	6.30	2.30	4.40	1.30	versicolor
17	5.40	3.90	1.30	0.40	setosa
123	7.70	2.80	6.70	2.00	virginica
47	5.10	3.80	1.60	0.20	setosa
113	6.80	3.00	5.50	2.10	virginica
39	4.40	3.00	1.30	0.20	setosa
32	5.40	3.40	1.50	0.40	setosa
73	6.30	2.50	4.90	1.50	versicolor

Sem nomes de linhas.

Tabela 3: Uma legenda para a tabela.

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.00	3.50	1.30	0.30	setosa
5.00	3.40	1.60	0.40	setosa
6.80	2.80	4.80	1.40	versicolor
5.80	2.70	3.90	1.20	versicolor
5.70	3.80	1.70	0.30	setosa
4.90	3.60	1.40	0.10	setosa
6.30	2.90	5.60	1.80	virginica
6.40	3.10	5.50	1.80	virginica
5.80	4.00	1.20	0.20	setosa
7.30	2.90	6.30	1.80	virginica

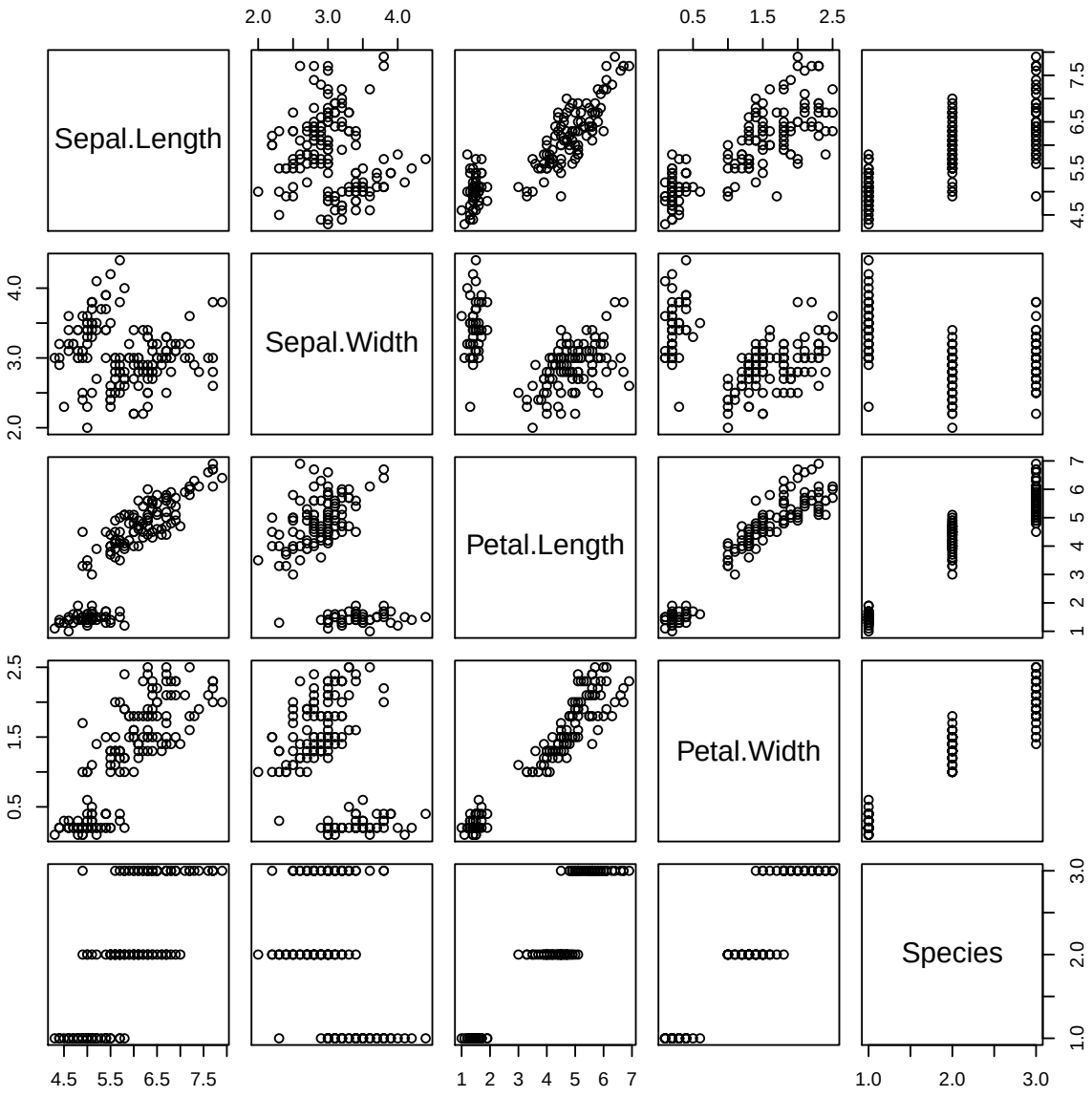
Com a saída de um modelo linear.

```
mod <- lm(Petal.Length ~ Petal.Width, iris)
```

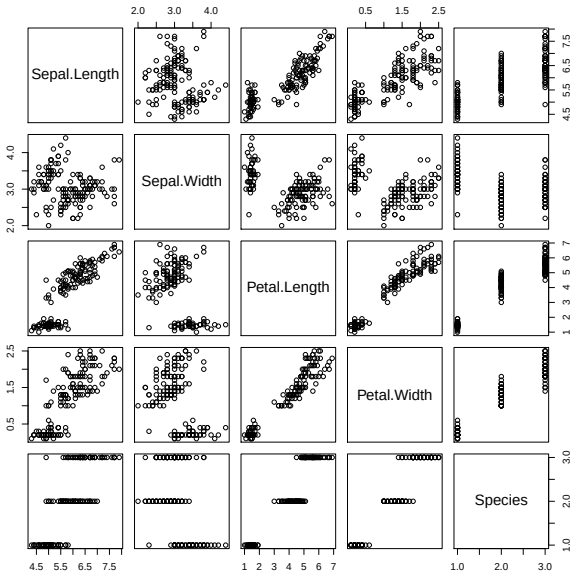
	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	1.0836	0.0730	14.85	0.0000
Petal.Width	2.2299	0.0514	43.39	0.0000

Figuras.

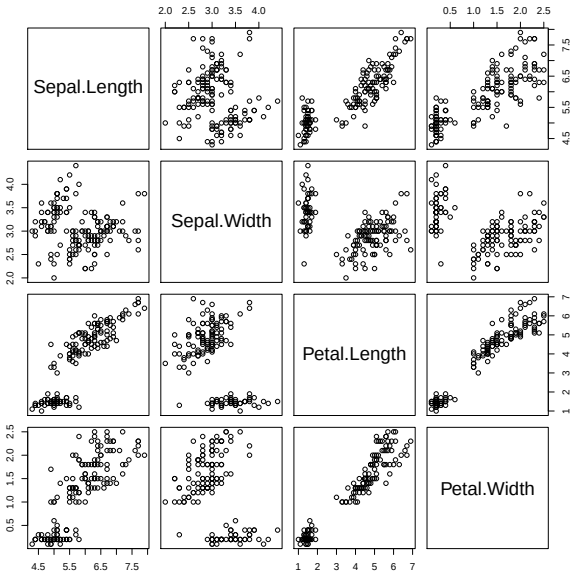
```
plot(iris)
```



```
plot(iris)
```



```r
plot(iris[, -5])
```



Algum texto sobre a figura 1.

```
plot(iris)
```

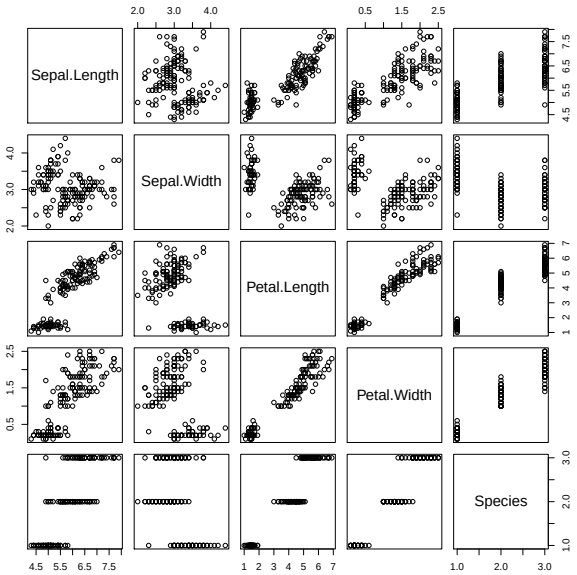
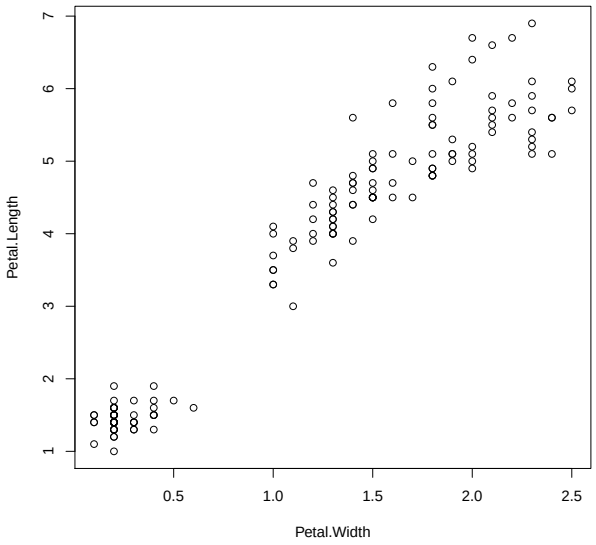
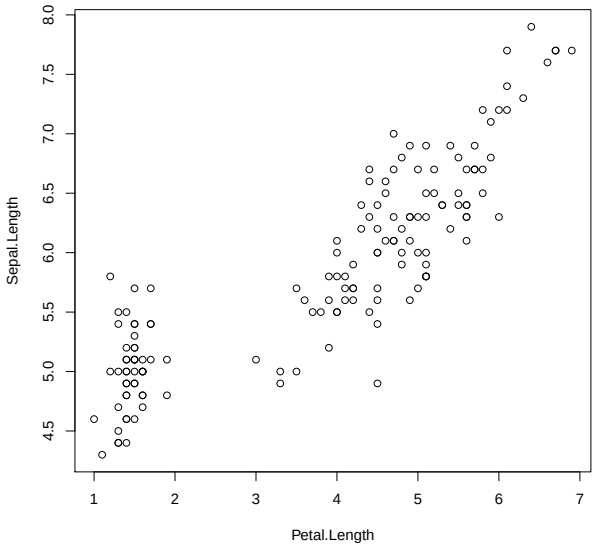


Figura 1: Legenda da figura.

```
plot(Petal.Length ~ Petal.Width, iris)
```




```
plot(Sepal.Length ~ Petal.Length, iris)
```



```
plot(Petal.Length ~ Petal.Width, iris)
plot(Sepal.Length ~ Petal.Length, iris)
```