

R markdown demo

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
##  1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##  Mean   :15.4    Mean   : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.   :120.00
```

Adding a code chunk

```
1 + 1
```

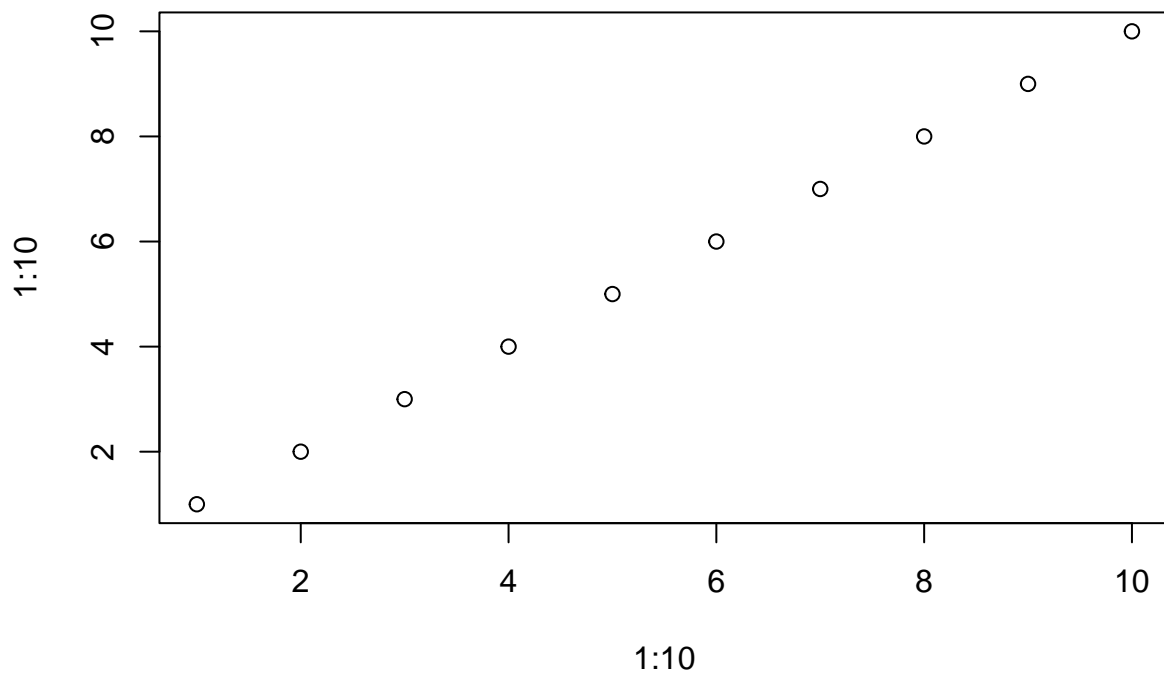
```
## [1] 2
```

```
log(10)
```

```
## [1] 2.302585
```

Output figure

```
plot(1:10,1:10)
```



Display data

cars

```
##      speed dist
## 1         4    2
## 2         4   10
## 3         7    4
## 4         7   22
## 5         8   16
## 6         9   10
## 7        10   18
## 8        10   26
## 9        10   34
## 10       11   17
## 11       11   28
## 12       12   14
## 13       12   20
## 14       12   24
## 15       12   28
## 16       13   26
## 17       13   34
## 18       13   34
## 19       13   46
```

```
## 20    14    26
## 21    14    36
## 22    14    60
## 23    14    80
## 24    15    20
## 25    15    26
## 26    15    54
## 27    16    32
## 28    16    40
## 29    17    32
## 30    17    40
## 31    17    50
## 32    18    42
## 33    18    56
## 34    18    76
## 35    18    84
## 36    19    36
## 37    19    46
## 38    19    68
## 39    20    32
## 40    20    48
## 41    20    52
## 42    20    56
## 43    20    64
## 44    22    66
## 45    23    54
## 46    24    70
## 47    24    92
## 48    24    93
## 49    24   120
## 50    25    85
```

```
x <- 1:10    # create an x variable
y <- 10:1    # create a y variable
dataf <- data.frame(x = x, y = y)

summary(dataf)
```

```
##           x           y
## Min.      : 1.00   Min.      : 1.00
## 1st Qu.: 3.25   1st Qu.: 3.25
## Median : 5.50   Median : 5.50
## Mean     : 5.50   Mean      : 5.50
## 3rd Qu.: 7.75   3rd Qu.: 7.75
## Max.     :10.00   Max.       :10.00
```

```
##           x           y
## Min.      : 1.00   Min.      : 1.00
## 1st Qu.: 3.25   1st Qu.: 3.25
## Median : 5.50   Median : 5.50
## Mean     : 5.50   Mean      : 5.50
## 3rd Qu.: 7.75   3rd Qu.: 7.75
## Max.     :10.00   Max.       :10.00
```

In-line R code

Research shows that $1223+2367 = 3590$.

```
# install.packages("tinytex")  
# tinytex::install_tinytex()
```