Initiation à la statistique avec R, code et compléments chapitre 1

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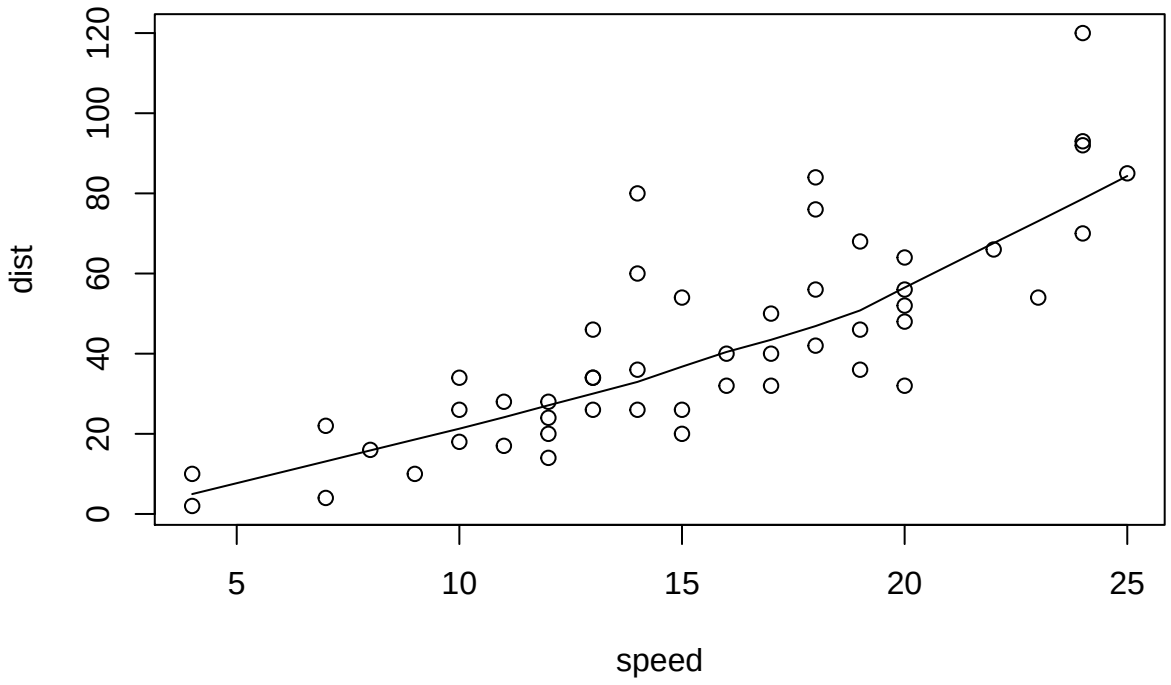
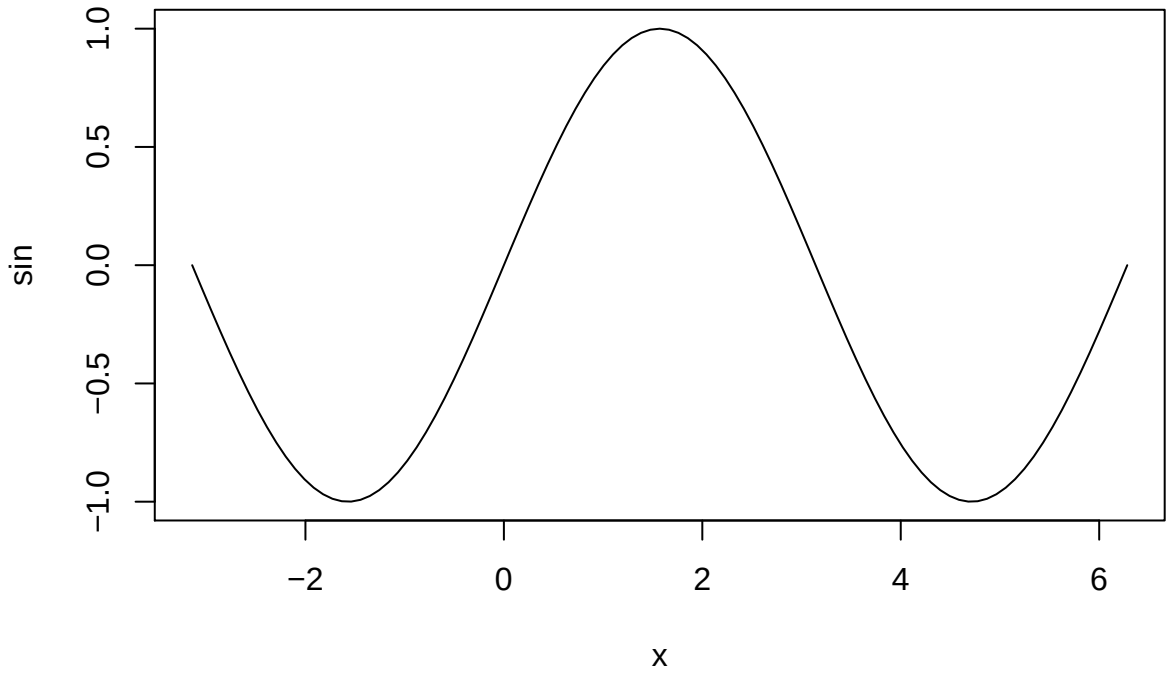
```
#Chapitre 1
#page 10
#q()
?read.table
help(read.table)

#aide pour le package dont le nom est "stats"
help(package="stats")
example(plot)
```

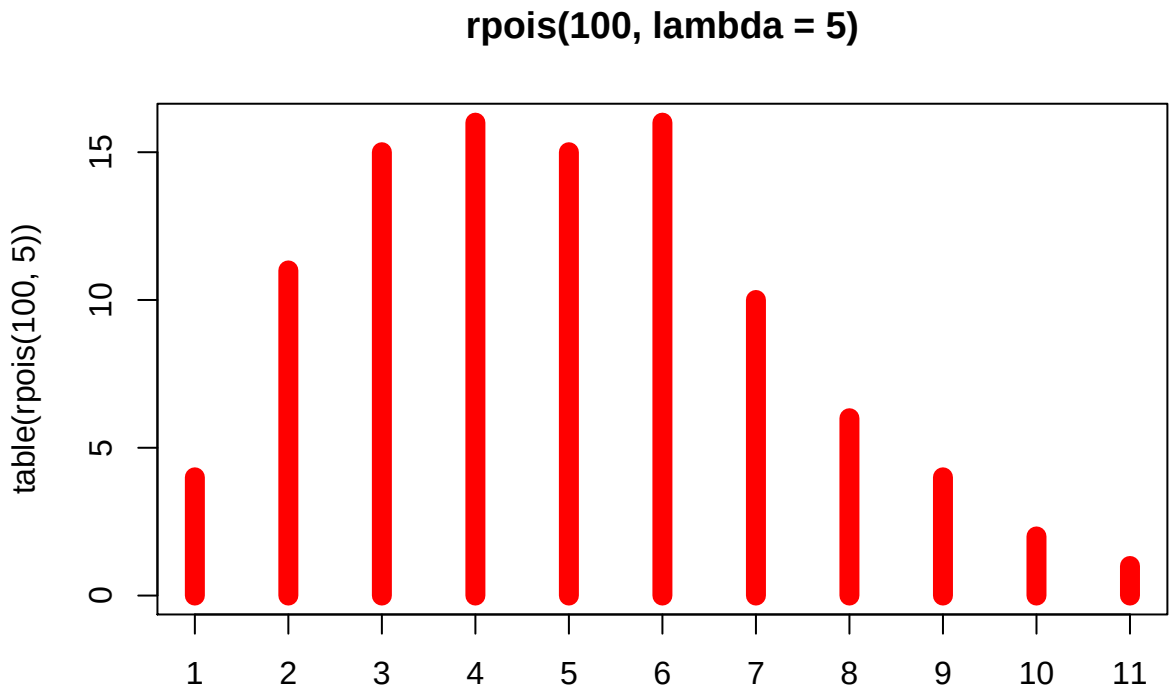
```
##
## plot> require(stats) # for lowess, rpois, rnorm
##
## plot> plot(cars)
```



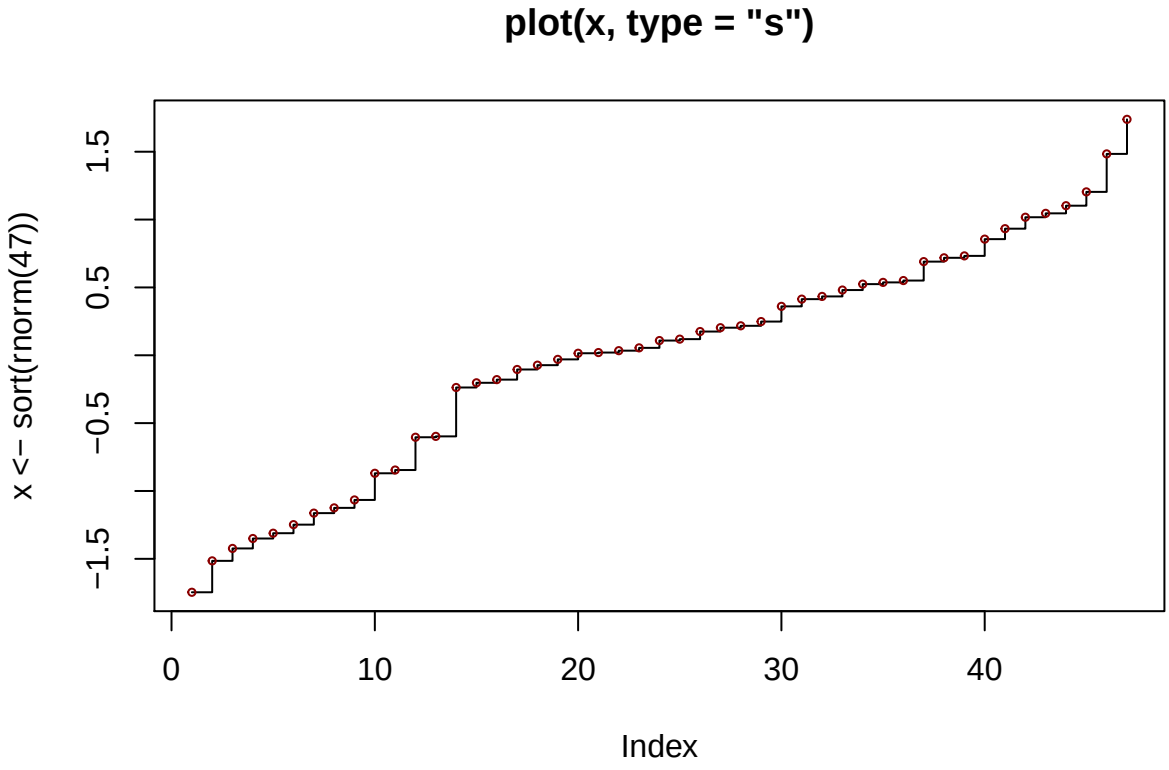

```
##
## plot> lines(lowess(cars))
##
## plot> plot(sin, -pi, 2*pi) # see ?plot.function
```




```
##
## plot> ## Discrete Distribution Plot:
## plot> plot(table(rpois(100, 5)), type = "h", col = "red", lwd = 10,
## plot+      main = "rpois(100, lambda = 5)")
```




```
##
## plot> ## Simple quantiles/ECDF, see ecdf() {library(stats)} for a better one:
## plot> plot(x <- sort(rnorm(47)), type = "s", main = "plot(x, type = \"s\")")
```




```
##
## plot> points(x, cex = .5, col = "dark red")
```

```
#page 11
example(plot)
```

```
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## plot> require(stats) # for lowess, rpois, rnorm
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```

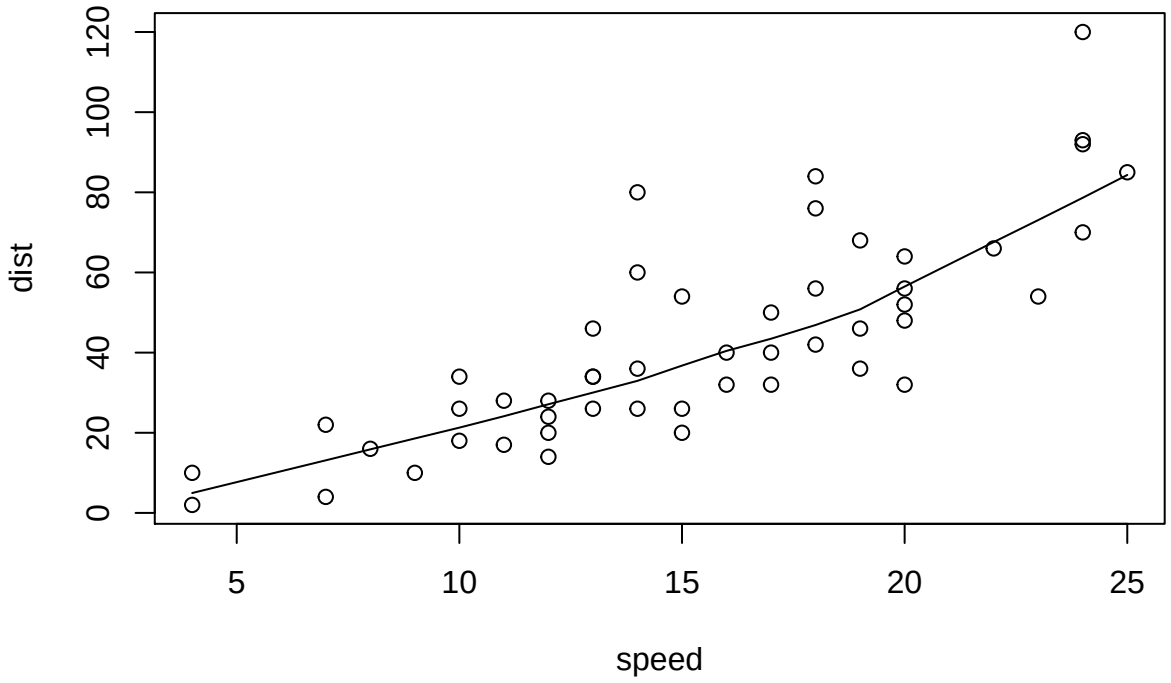


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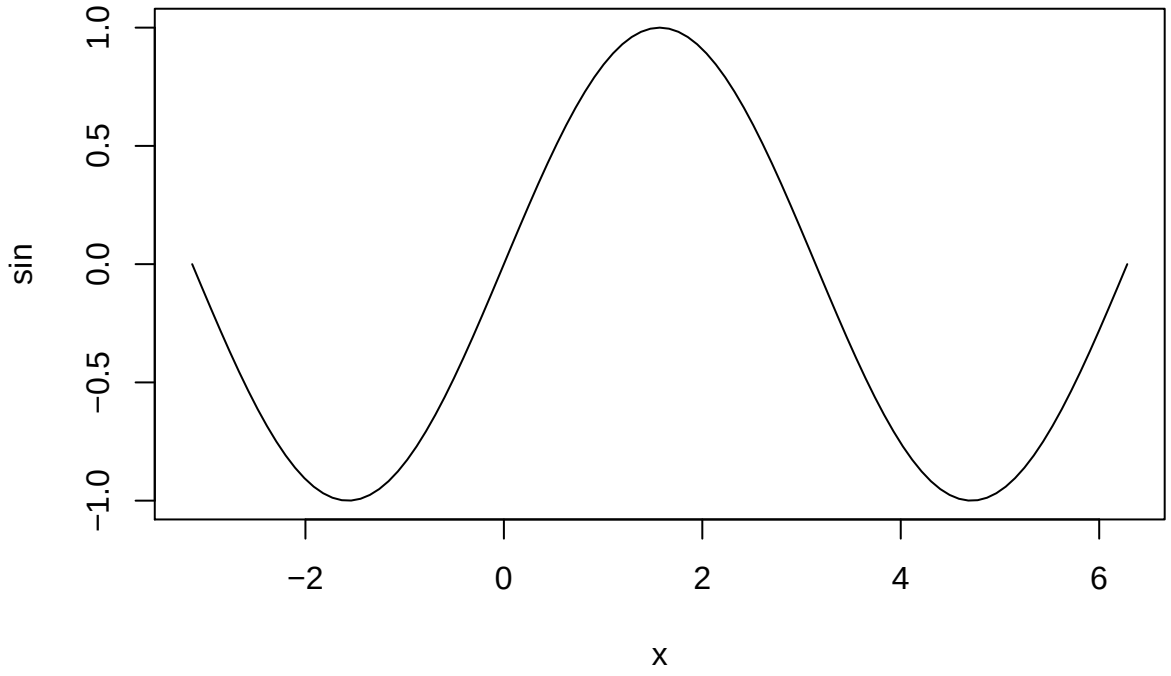


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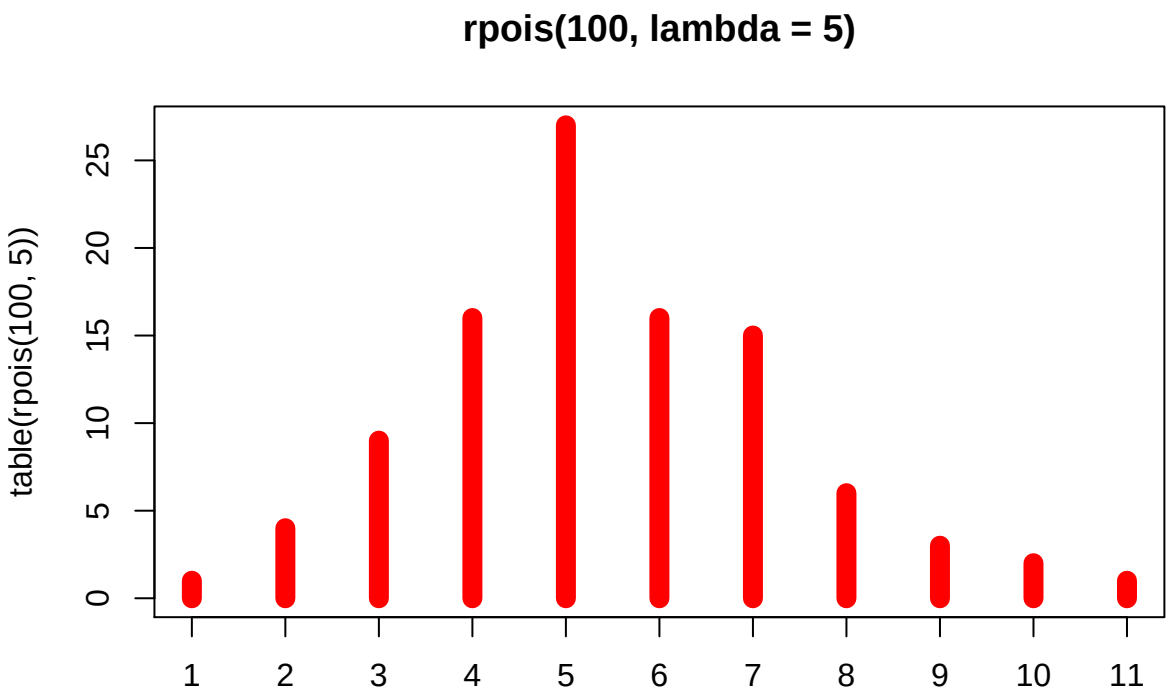


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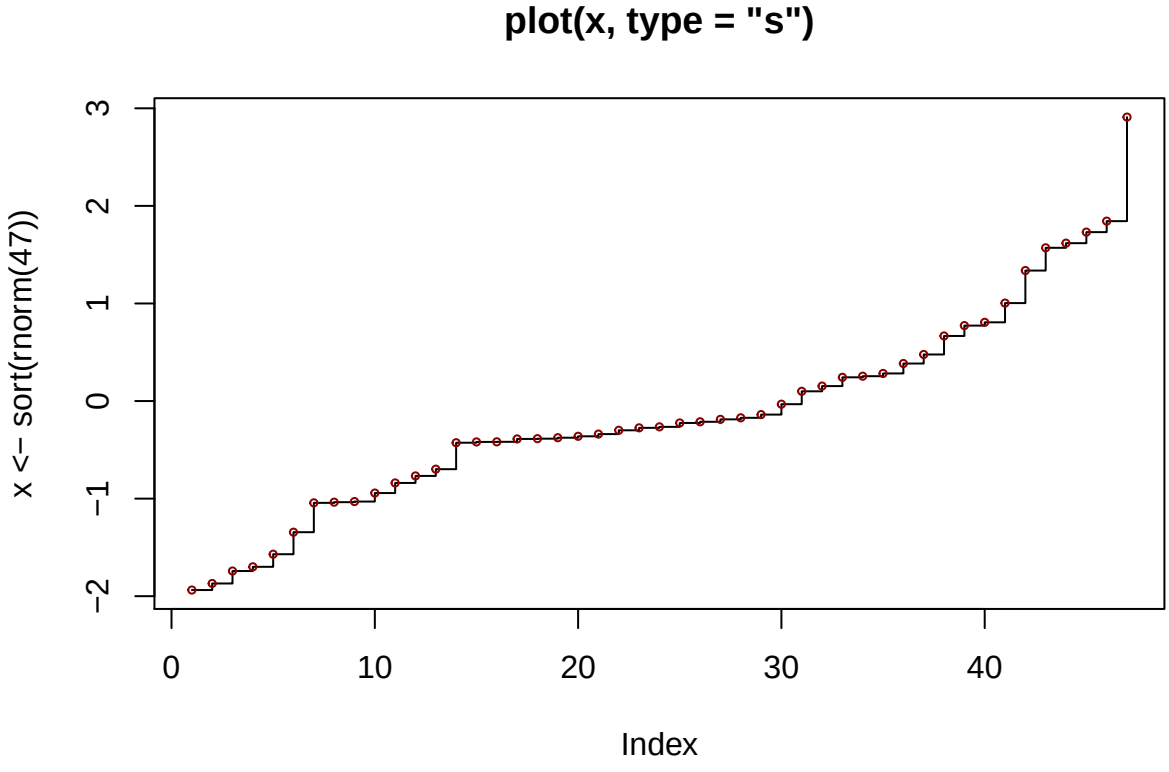


```
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## plot> points(x, cex = .5, col = "dark red")
```

```r
help("read.table",help_type="html")
```

```
## starting httpd help server ... done
```

```r
help("read.table",help_type="text")
help.start()
```

```
## If the browser launched by '/usr/bin/open' is already running, it
##     is *not* restarted, and you must switch to its window.
## Otherwise, be patient ...
```

```r
options(help_type="html")
options(help_type="text")

#page 12
2+8
```

```
## [1] 10
```

```r
120:155
```

```
##  [1] 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136
## [18] 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153
## [35] 154 155
```

```r
sqrt(4)
```

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

```r
#page 13
#source(file="C://chemin//vers//nomdefichier//fichier.R",echo=T)
#source(file=".../repertoire/fichier.R",echo=T)

#page 14
#source(file="fichier.R",echo=T)
## Si "fichier.R" est dans le répertoire de travail

# Exercice 1.1
#page 18
#install.packages("BioStatR")
#install.packages("BioStatR",repos="http://irma.math.unistra.fr/~fbertran/BioStatR")

#page 19
help(package="BioStatR")

# Exercice 1.2
# 1)
10:25
```

```
##  [1] 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
```

```r
seq(from=10,to=25,by=1)
```

```
##  [1] 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
```

```r
seq(10,25,1)
```

```
##  [1] 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
```

```r
# 2)
seq(from=20,to=40,by=5)
```

```
## [1] 20 25 30 35 40
```

```r
#page 20
seq(20,40,5)
```

```
## [1] 20 25 30 35 40
```

```r
# 3)
rep(x=28,times=10)
```

```
##  [1] 28 28 28 28 28 28 28 28 28 28
```

```r
rep(28,10)
```

```
##  [1] 28 28 28 28 28 28 28 28 28 28
```