HOMEWORK

4c

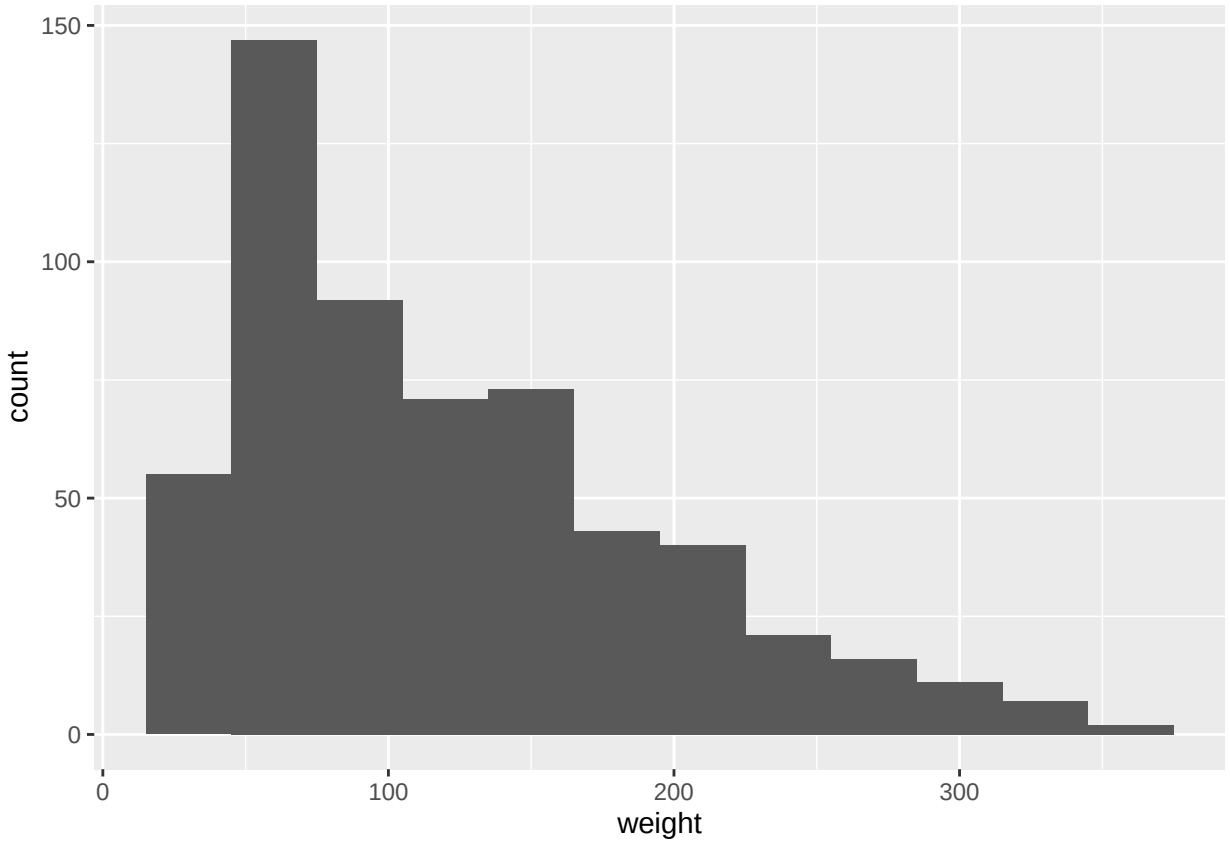
```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------- tidyverse 1.2.1 --
```

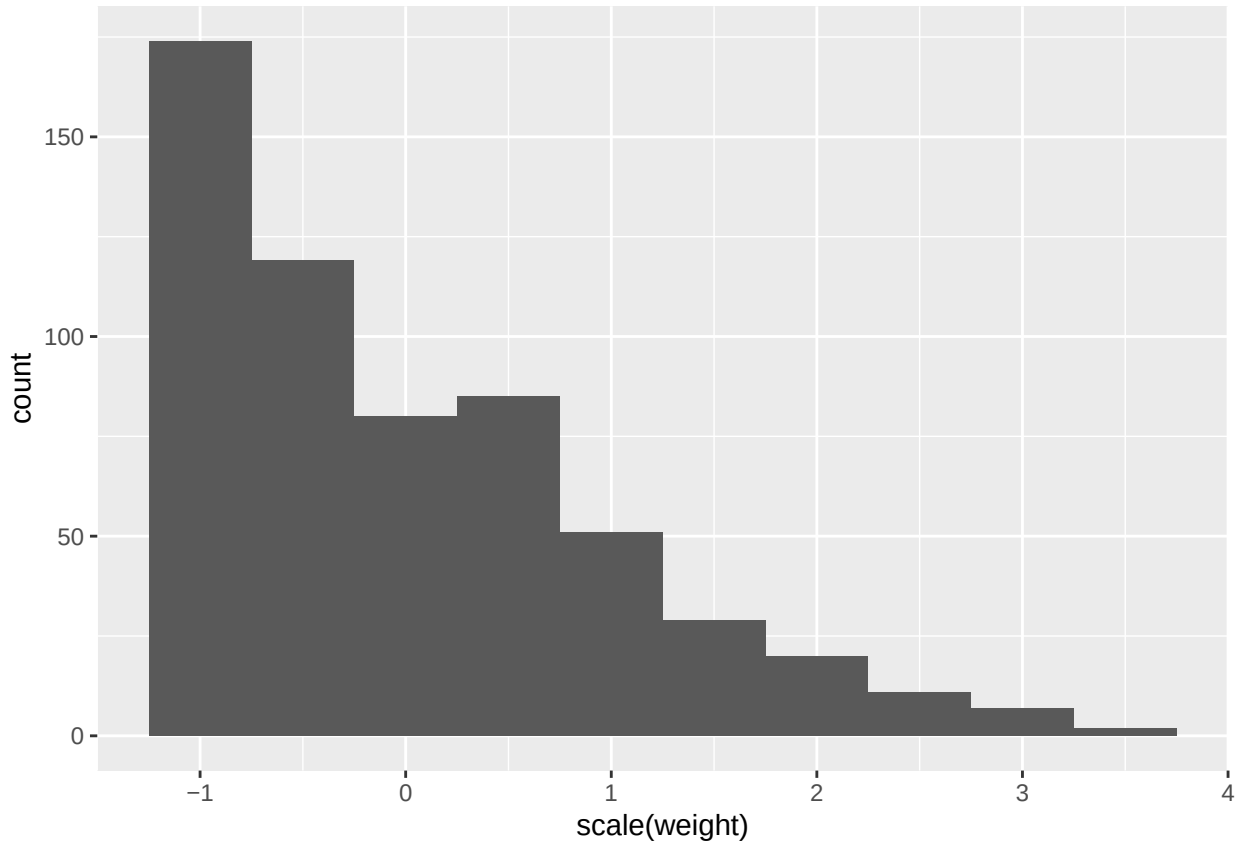
```
## v ggplot2 3.2.0     v purrr   0.3.2
## v tibble  2.1.3     v dplyr   0.8.2
## v tidyr   0.8.3     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.4.0
```

```
## -- Conflicts ------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

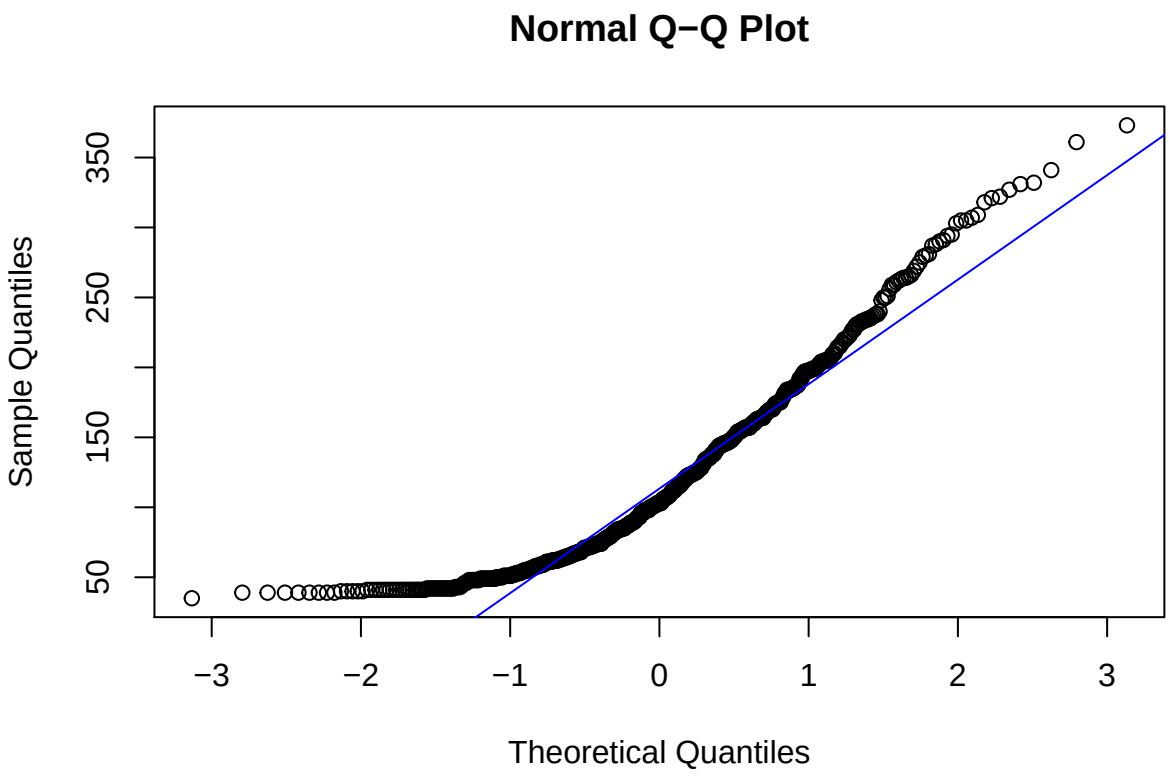
```
library(datasets)

ggplot(data = ChickWeight, aes(x = weight)) + geom_histogram(binwidth = 30)
```



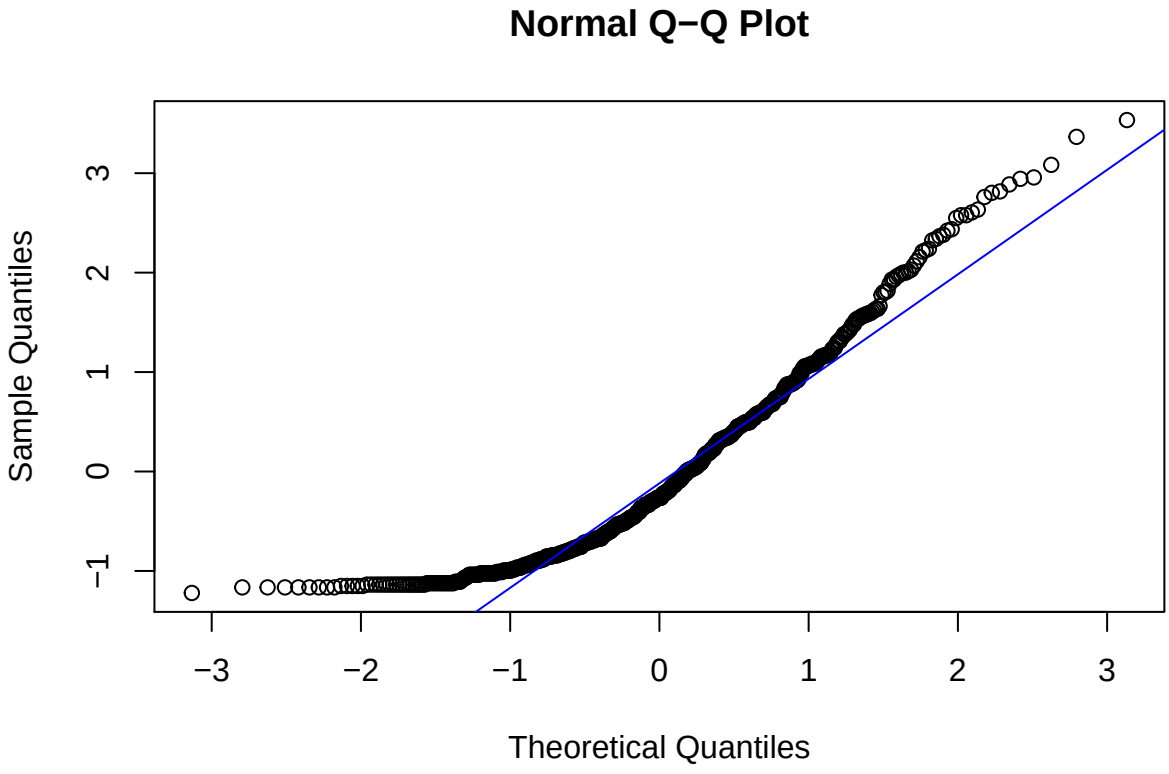

```
#Shape is skewed to the right.
ggplot(data = ChickWeight, aes(x = scale(weight))) + geom_histogram(binwidth = 0.5)
```




```
#Data is still skewed to the right???

qqnorm(ChickWeight$weight)
qqline(ChickWeight$weight, col ="blue")
```

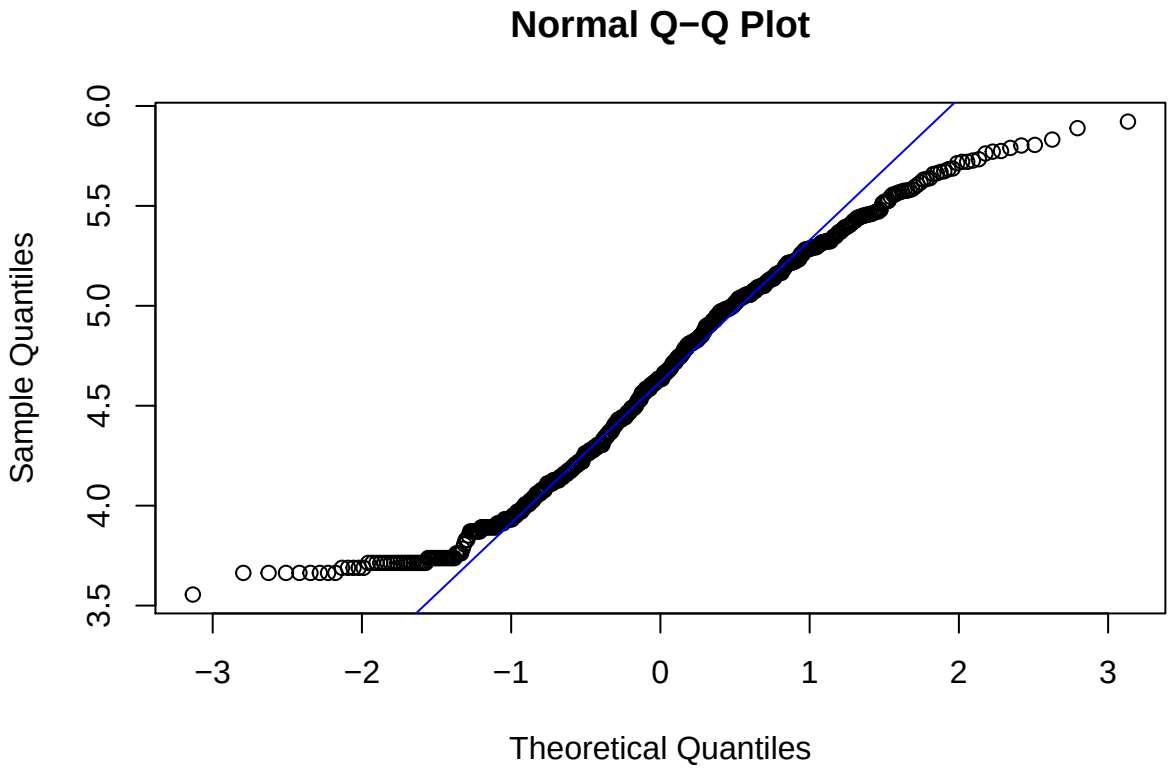



```
qqnorm(scale(ChickWeight$weight))
qqline(scale(ChickWeight$weight), col ="blue")
```

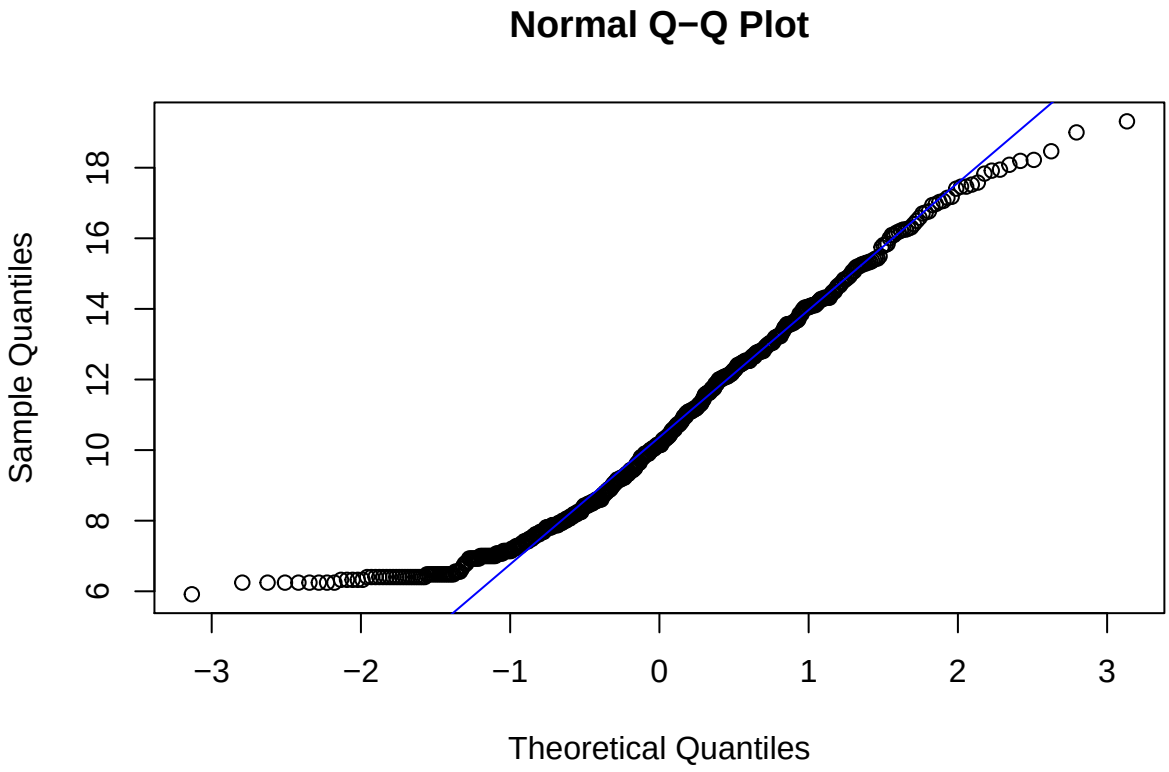



```
#not different. Only scale is different because scale normalizes the data?? Maybe I'm using scale incor
```

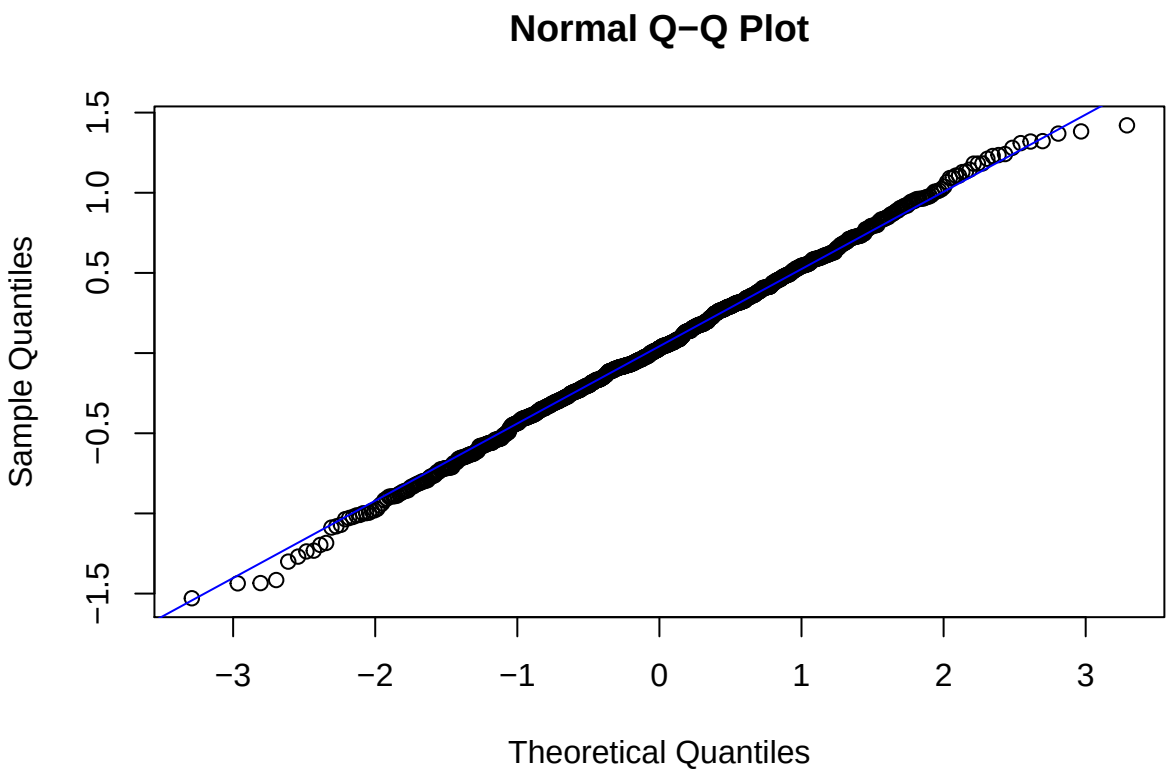
```r
dt = transform(ChickWeight, weight = log(weight))
qqnorm(dt$weight)
qqline(dt$weight, col ="blue")
```



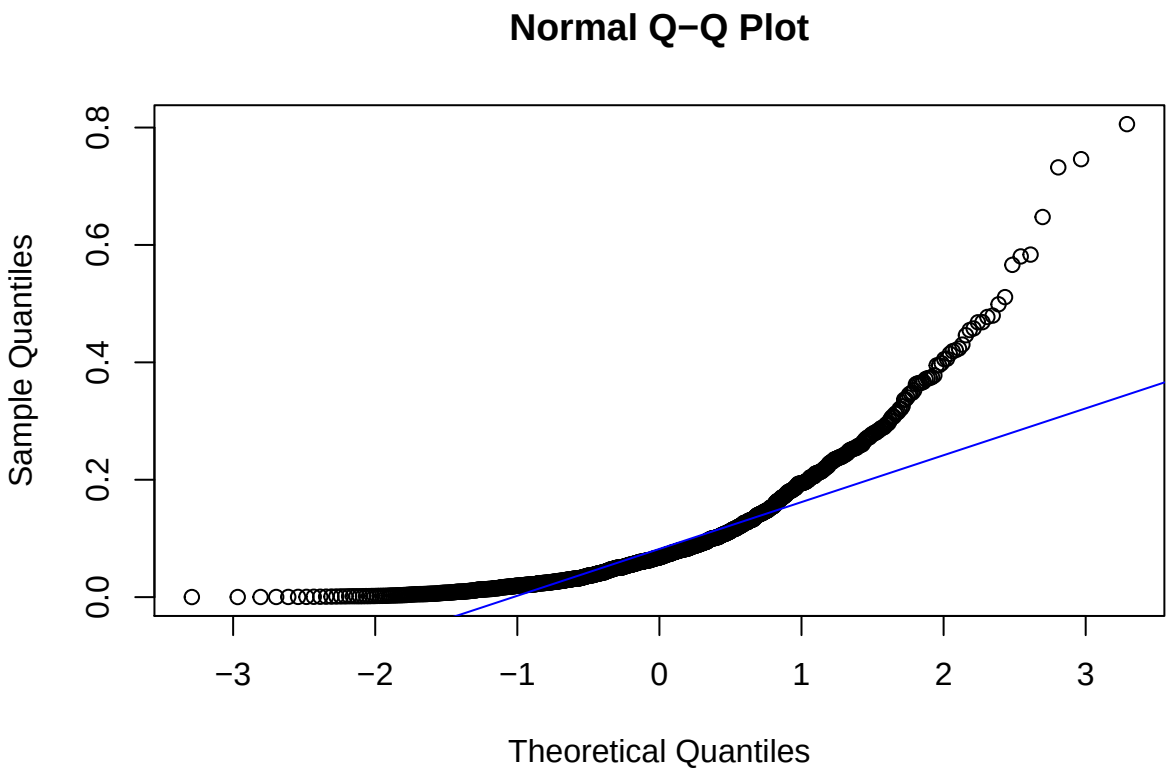

```r
# line is straigther than normal

dt = transform(ChickWeight, weight = sqrt(weight))
qqnorm(dt$weight)
qqline(dt$weight, col ="blue")
```



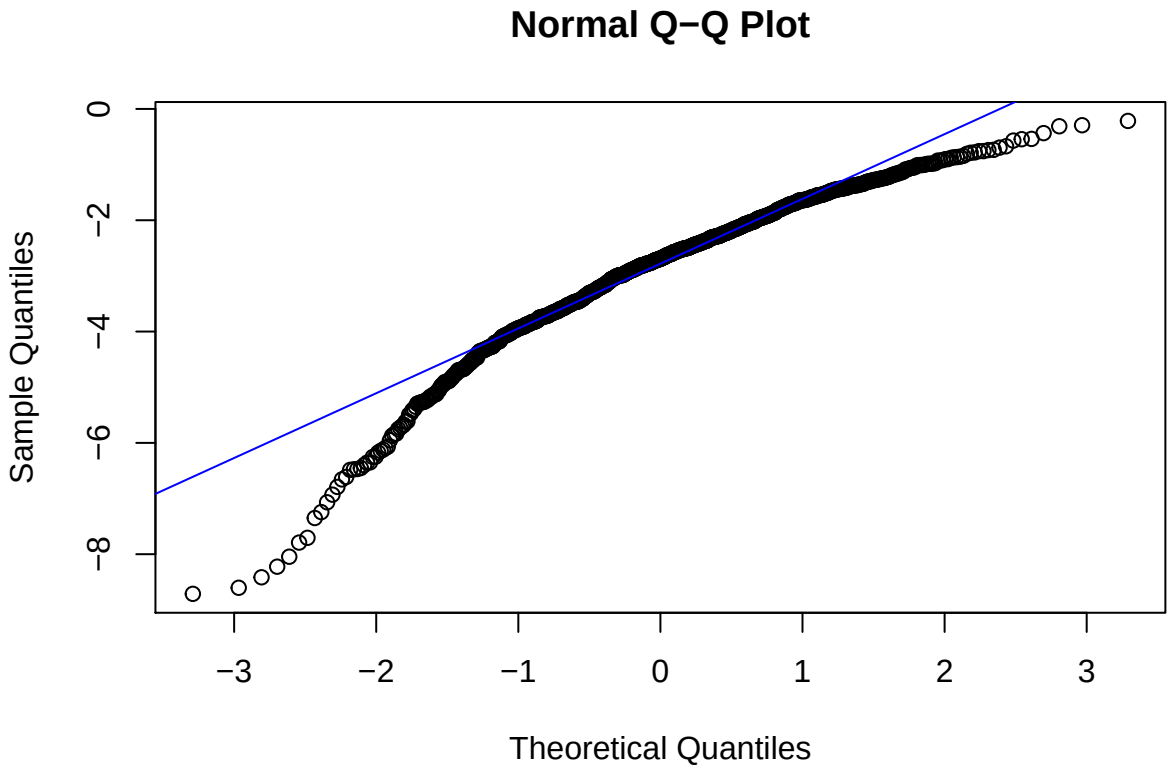

```
#steeper than log transformation

#2
#normal dist.
dt = rnorm(1000, 0, 0.5)
qqnorm(dt)
qqline(dt, col ="blue")
```




```r
#exp dist.
dt2 = rexp(1000, 10)
qqnorm(dt2)
qqline(dt2, col ="blue")
```



```r
#log trans.
qqnorm(log(dt2))
qqline(log(dt2), col ="blue")
```



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You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.