Stones

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Libraries

```
library(MASS)
library(tidyverse)
```

```
## -- Attaching packages ------------------------------------------------------------------- tidyverse 1.3
```

```
## v ggplot2 3.2.1     v purrr   0.3.3
## v tibble  2.1.3     v dplyr   0.8.3
## v tidyr   1.0.0     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()
## x dplyr::select() masks MASS::select()
```

read data

```
stones <- read_csv(file = "./data/stones.csv")
```

```
## Parsed with column specification:
## cols(
##   mass = col_double(),
##   stone = col_character()
## )
```

```
stones$ct <- stones$mass * 5
stones$cost_raw <- stones$mass *.10
stones$stone <- factor(stones$stone)
```

summary stats

```
summary(stones$ct)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    3.55   14.85   18.90   20.01   24.21   43.60
```

```
sd(stones$ct)
```

```
## [1] 7.857139
```

```
summary((stones$ct[2:length(stones$ct)]))
```

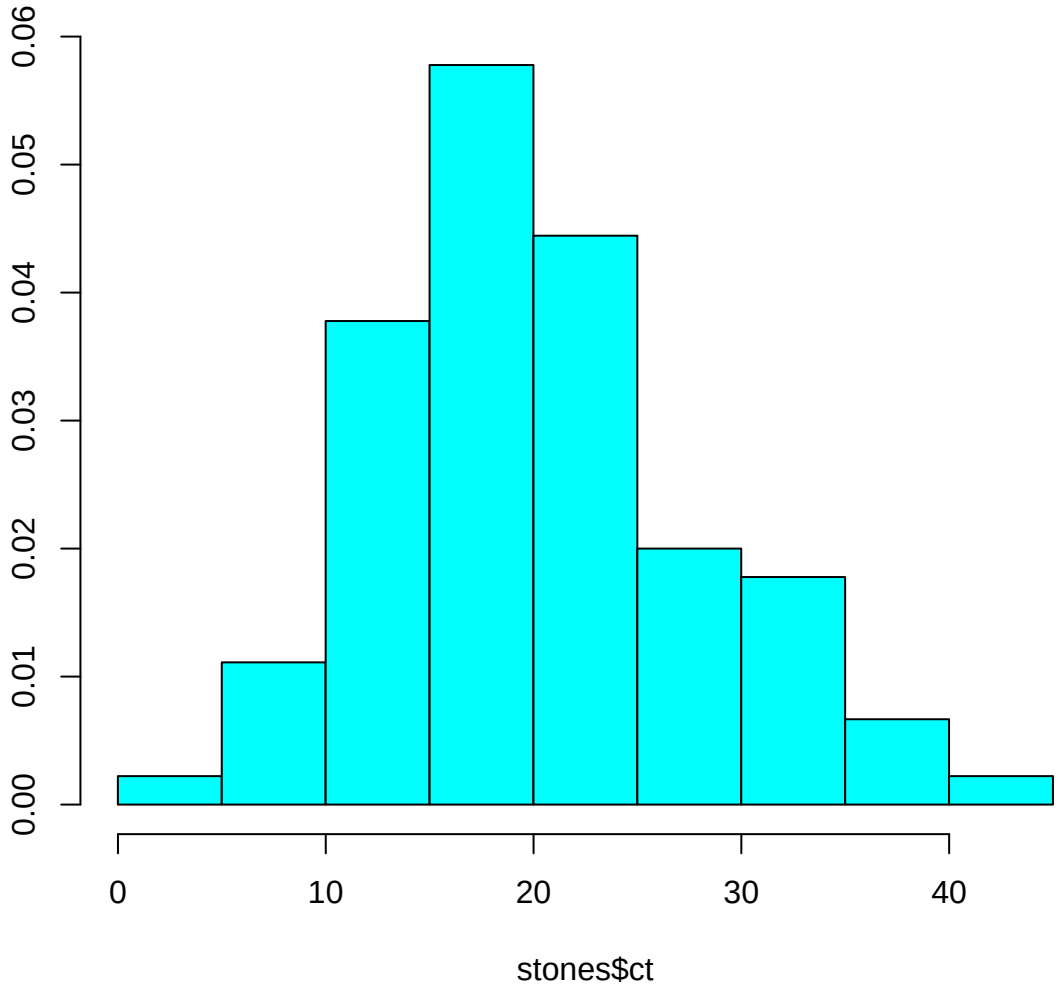
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    3.55   14.80   19.15   20.06   24.25   43.60
```

```
sd((stones$ct[2:length(stones$ct)]))
```

```
## [1] 7.885159
```

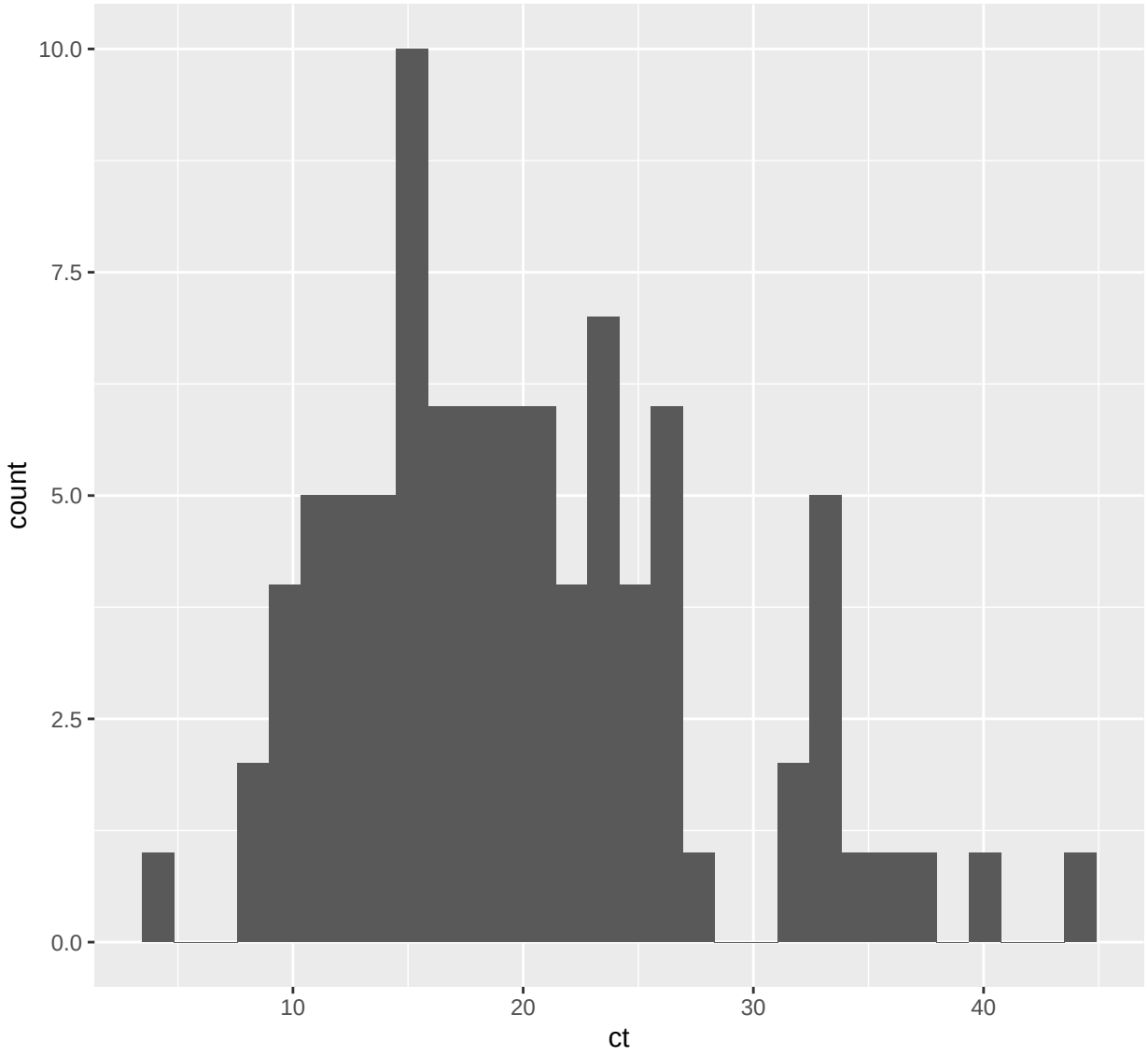
plots

```
truehist(stones$ct)
```

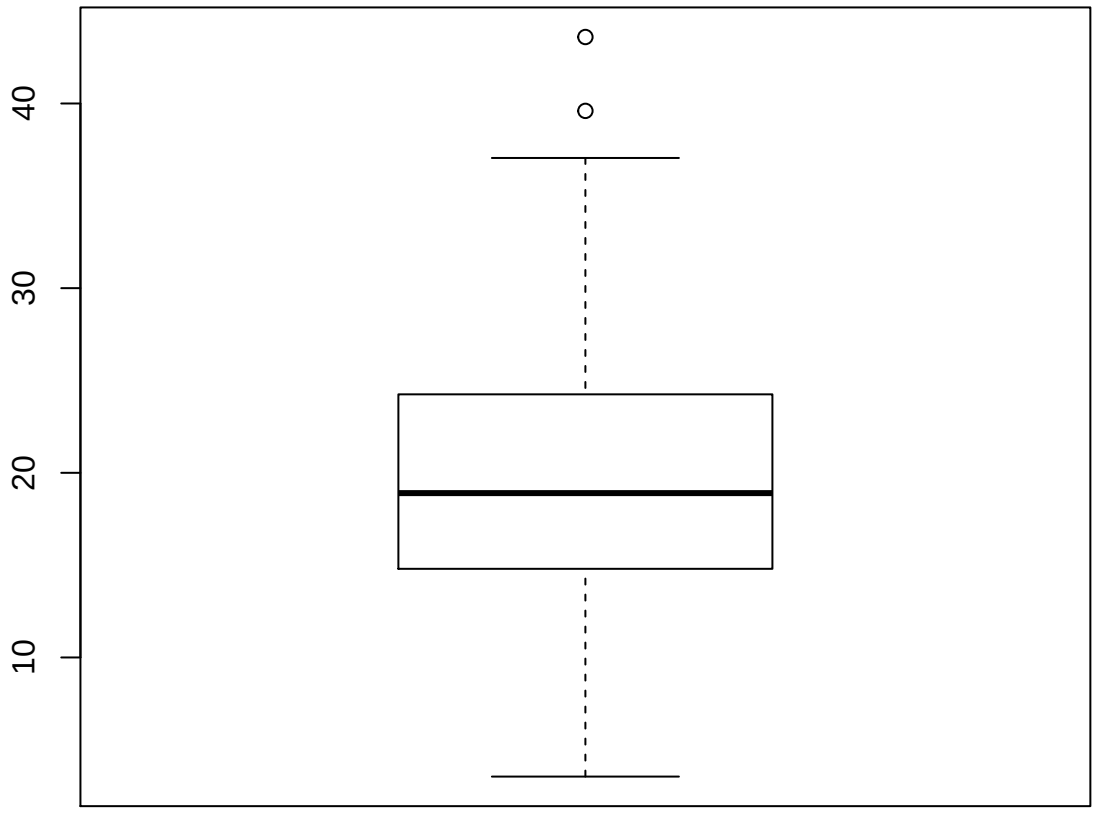



```
ggplot(data = stones,
       aes(ct)) +
     geom_histogram()
```

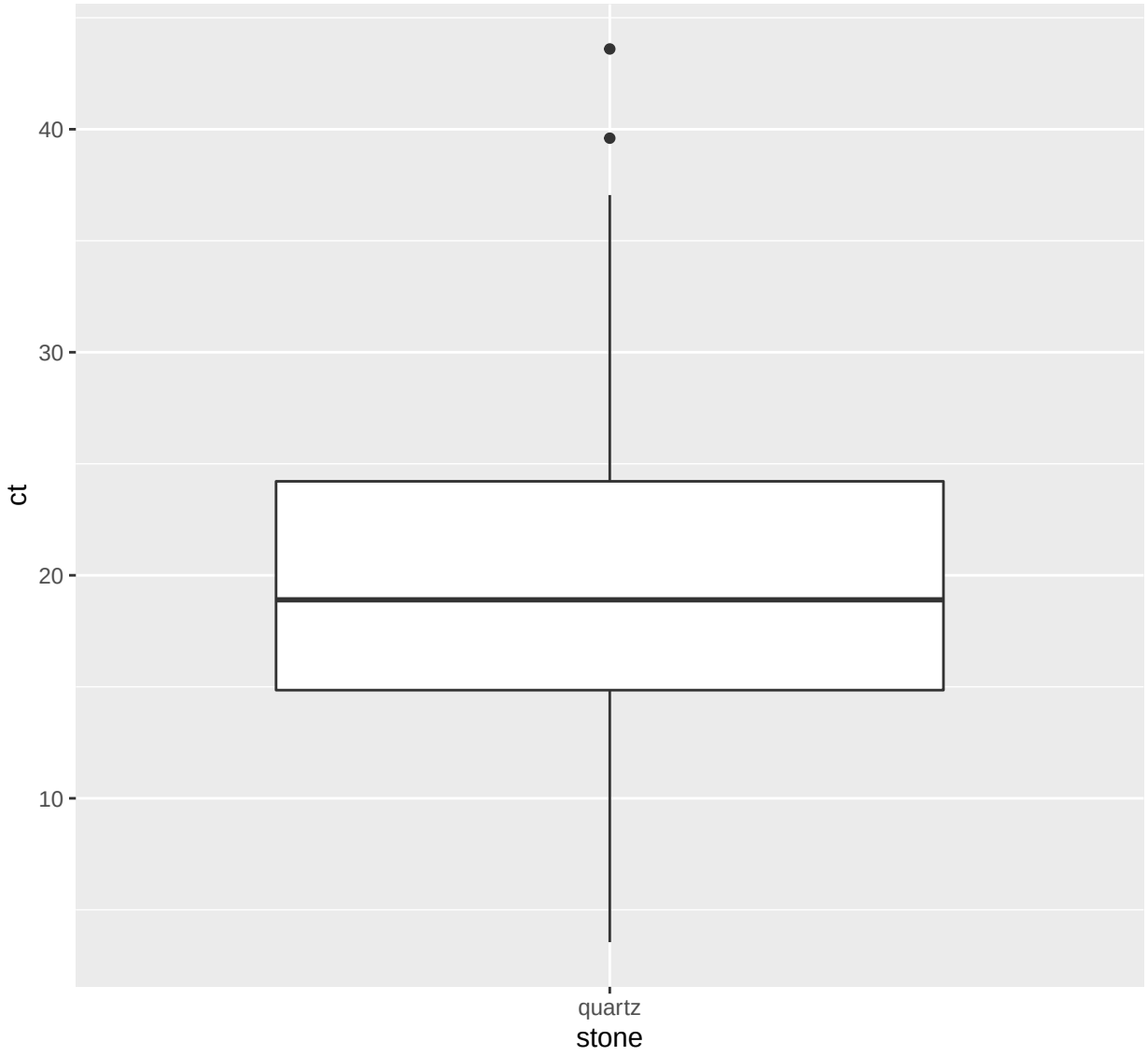
```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```




```
boxplot(stones$ct)
```




```
ggplot(data = stones,
       aes(y = ct,
           x = stone)) +
     geom_boxplot()
```


40
30
20
10
ct
quartz
stone