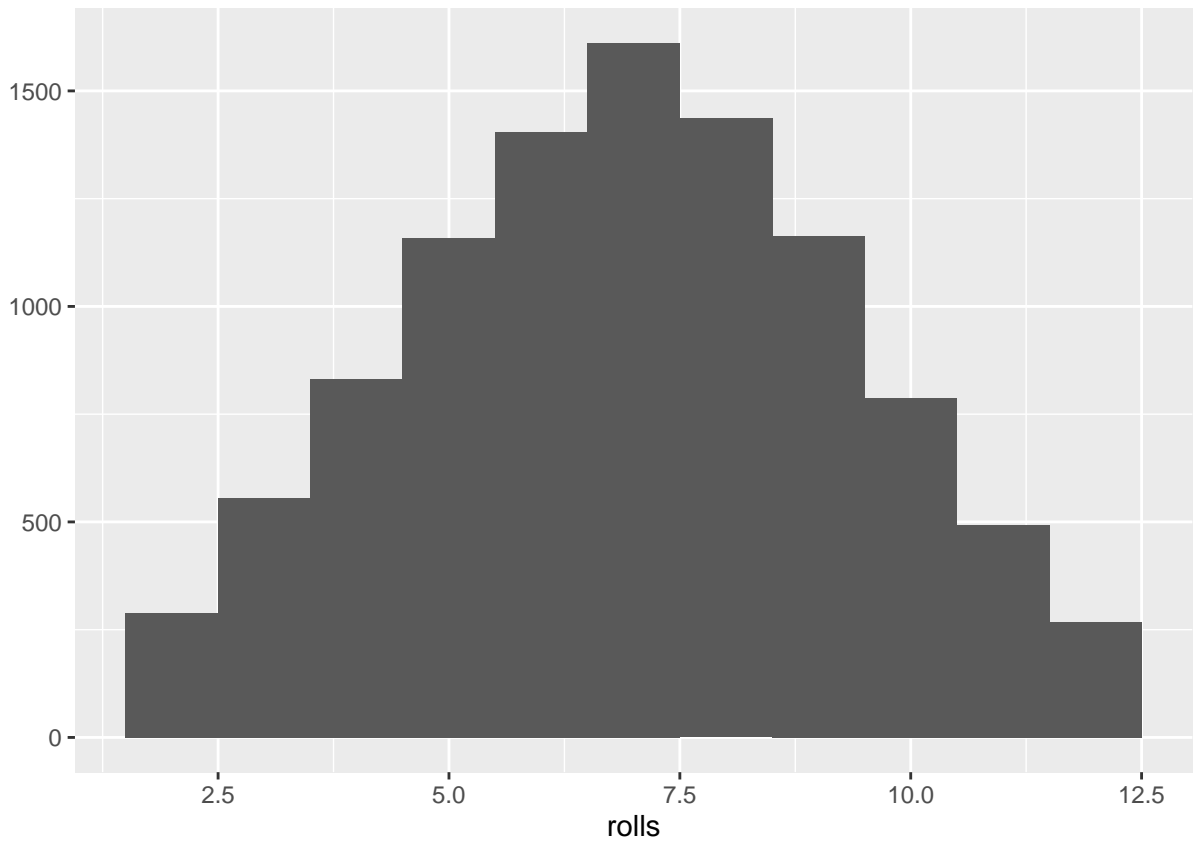# 2 dice model

Let us create dice roll model

```
library(ggplot2)
```

Fair dice:

```
roll <- function(){
  dice <- sample(1:6, 2, replace = TRUE)
  return(sum(dice))
}
```

```
rolls <- replicate(10000, roll())
qplot(rolls, binwidth = 1)
```


Unfair dice:

```
roll <- function(){
  dice <- sample(1:6, 2, replace = TRUE, prob = c(1/7, 1/7, 1/7, 1/7, 1/7, 2/7))
  return(sum(dice))
}
```

```
rolls <- replicate(10000, roll())
qplot(rolls, binwidth = 1)
```