Dice Experiment A

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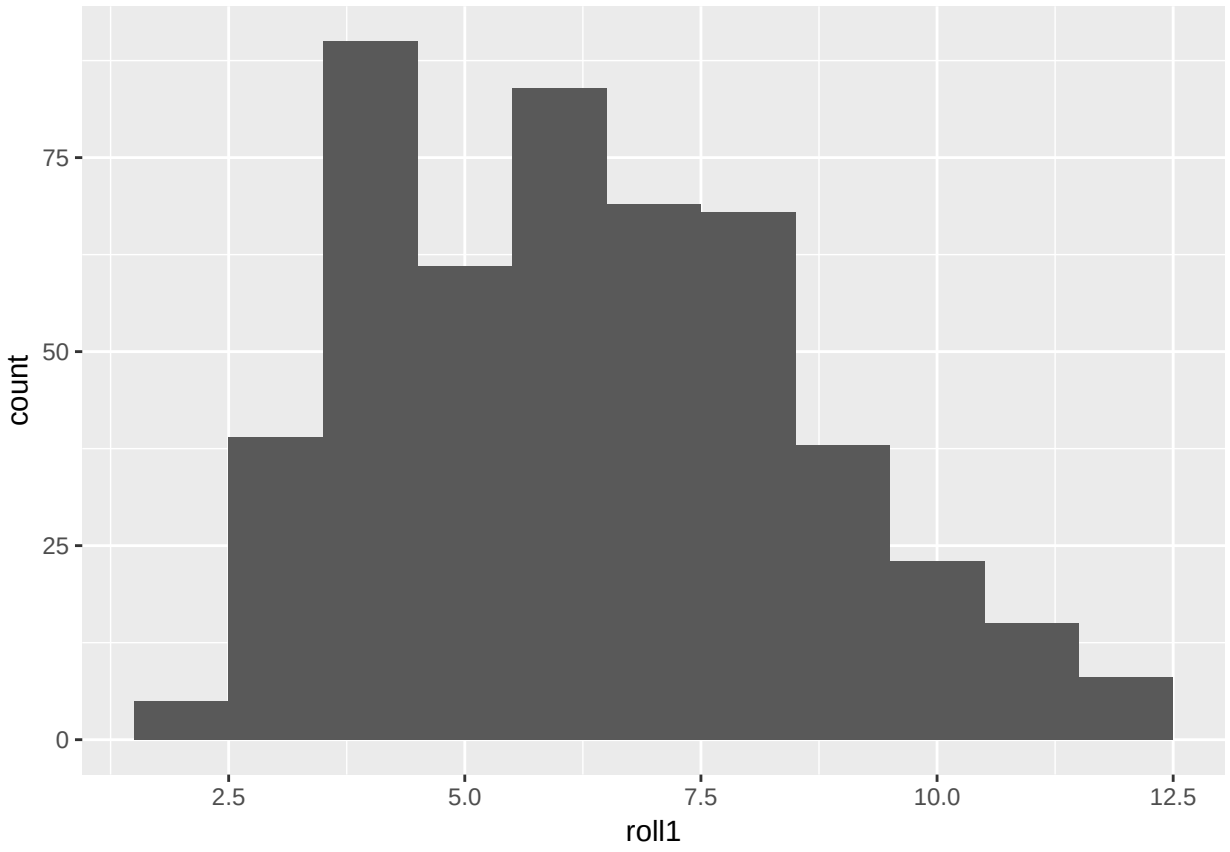
PROBLEM STATEMENT

Write a sample function to generate the output for one roll of a biased dice and display its sum and output graph.

code: sample(x = die, size = 2, replace = TRUE)

CODE:

```
#in Rmd when we find ```{r} ``` this means that whats inside that block is R code


roll_dice_biased<- function() {
die <- 1:6
dice <- sample(die, size = 2, replace = TRUE, prob = c(1/8, 3/8, 1/8, 1/8, 1/8, 1/8))
#sample() function is used to create unbiased samples of of a vector
#The syntax of the sample function is as follows:
# sample(<vector or range(which is also a vector)>,<size of the output>,<replace>,<prob>)

#size: the size should not be greater than the vector length if replace is false
#replace: if true there can be repetitions
#prob: vector that defines the probability of occurence of each element of the vector
sum(dice)
}
#above given is the technique to write a function in R

roll1<- replicate(500, roll_dice_biased())
#replicate function is used for the purpose of replicating a function or any line of code multiple time

#The syntax of the funtion is as follows:
#replicate(<no of times to repeat>,<function to repeat or the code to repeat>)

#to know how to install packages check out the r pdf(oreilly) page 23

library(ggplot2)

#the library function is used to add and attach add-on packages
#for using ggplot2 we need to install it using install.packages("ggplot2") and use it using library("gg

qplot(roll1, binwidth = 1)
```


75
50
25
0
count
2.5
5.0
7.5
10.0
12.5
roll1