tutoring-summer2022-intror

First, on .rmd files, code chunks, and commenting out in the code chunks

1 - making a code chunk

2 - comment out something in a code chunk

```
## hey, this is a comment
## so i can remember why i wrote this code... when i look back
## in 2 years...
```

Let's get started - print "my name is _____"

```
print("My name is Alyssa!")
```

```
## [1] "My name is Alyssa!"
```

Find the sum of 1 2 and 3

```
sum(1,5,3)
```

```
## [1] 9
```

Calculate 2 plus 2

100 divided by 23

7998 minus 1242

72 times 87

FUNCTIONS

Two parts of a function - what are they?

1 - the name

2 - the inputs

A function is like a recipe

The things in parentheses are the ingredients

Make a function that adds 1 plus 2 and outputs the answer

call the function "mysum"

```
mysum <- function(x,y){
  sum(x,y)
}
```

Now make another function

That takes 3 numbers, sums them, and multiplies that sum by the first number

squared

ask it to print the result of this operation

Call the function "mysecondfunction"

```
mysecondfunction <- function(a,b,c){
  sum <- a + b + c
  result <- sum*(a^2)
  print(result)
}

mysecondfunction(1,2,3)
```

```
## [1] 6
```

Histograms

```
# First make a "dataset"

inches_of_rain_in_monsoon <- c(1,3,4,2,1,2,5,5,5,5,5,6,6,6,2,2,1,4,5,6,2,3,4,1)

# Based on this vector, which number occurs the most frequently?

inches_of_rain_in_monsoon
```

```
##  [1] 1 3 4 2 1 2 5 5 5 5 5 6 6 6 2 2 1 4 5 6 2 3 4 1
```

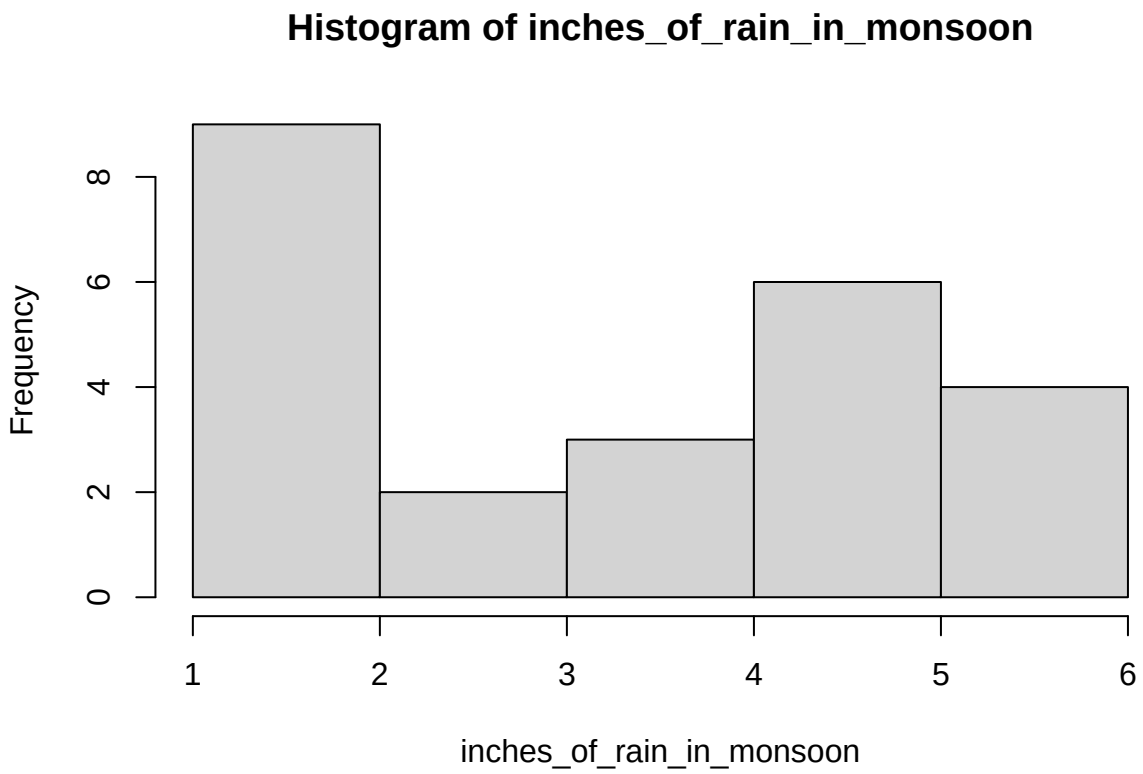
```
# What is the mean?

mean(inches_of_rain_in_monsoon)
```

```
## [1] 3.583333
```

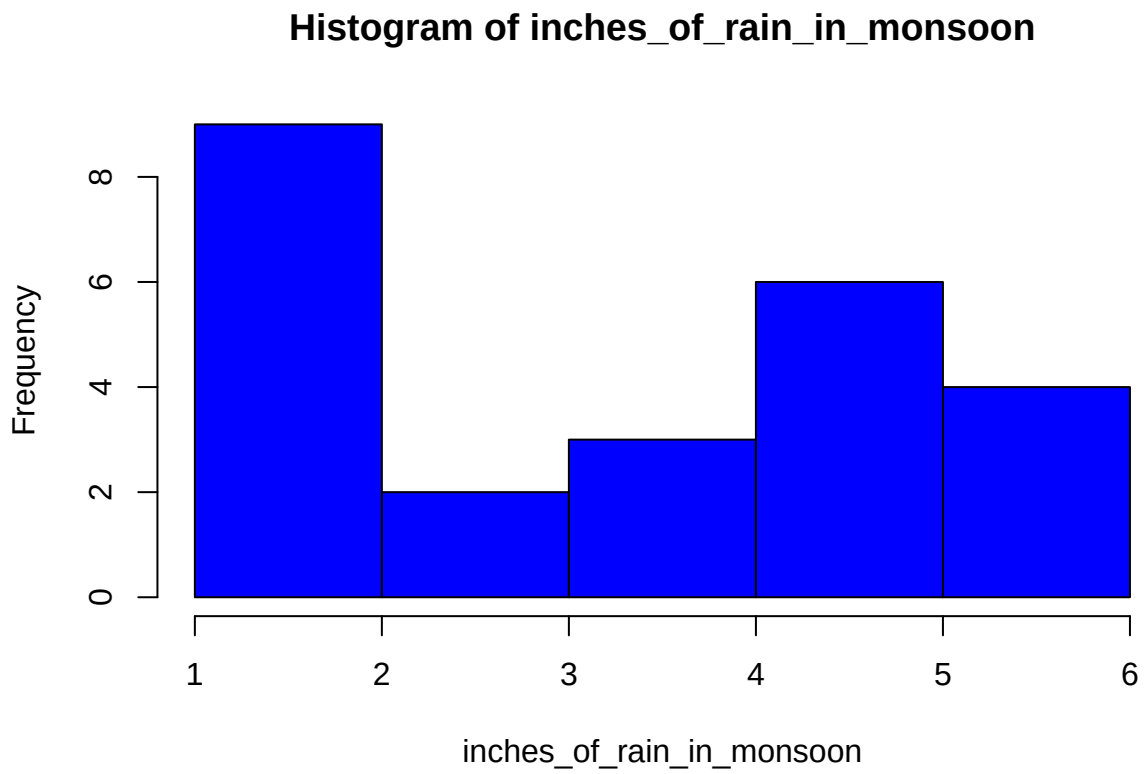
```
# Let's make a histogram

hist(inches_of_rain_in_monsoon)
```



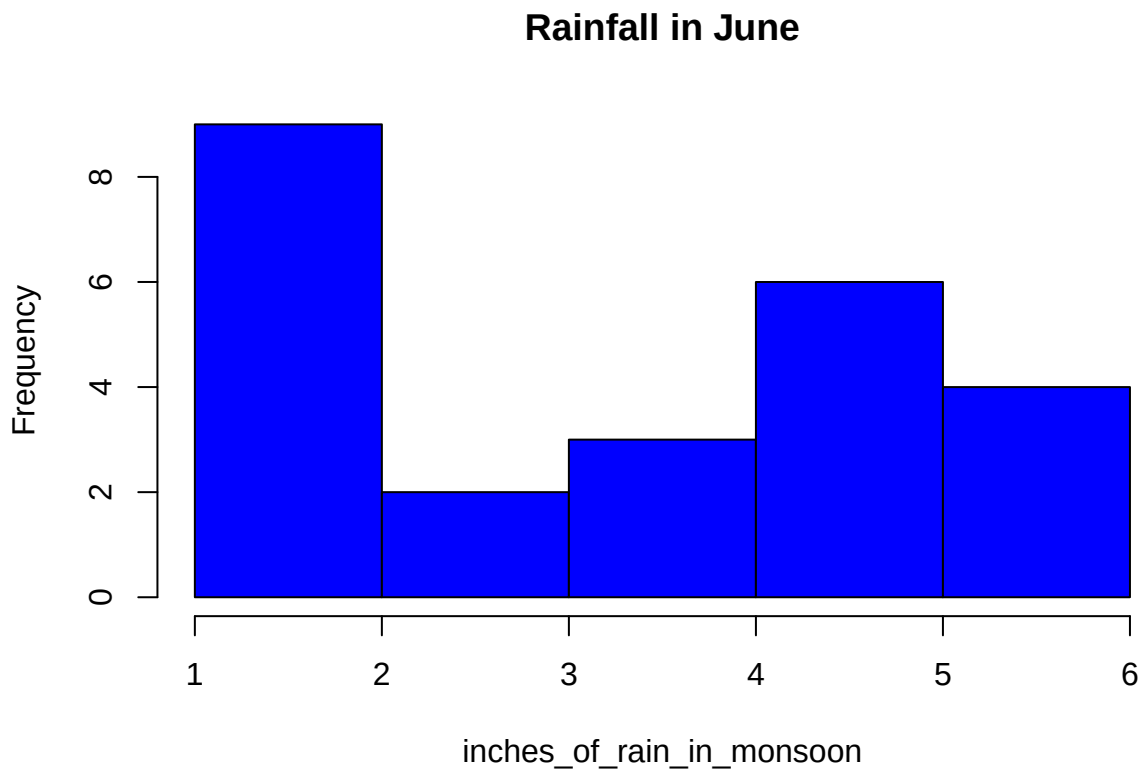

```
# Let's make it blue

hist(inches_of_rain_in_monsoon, col = c("blue"))
```



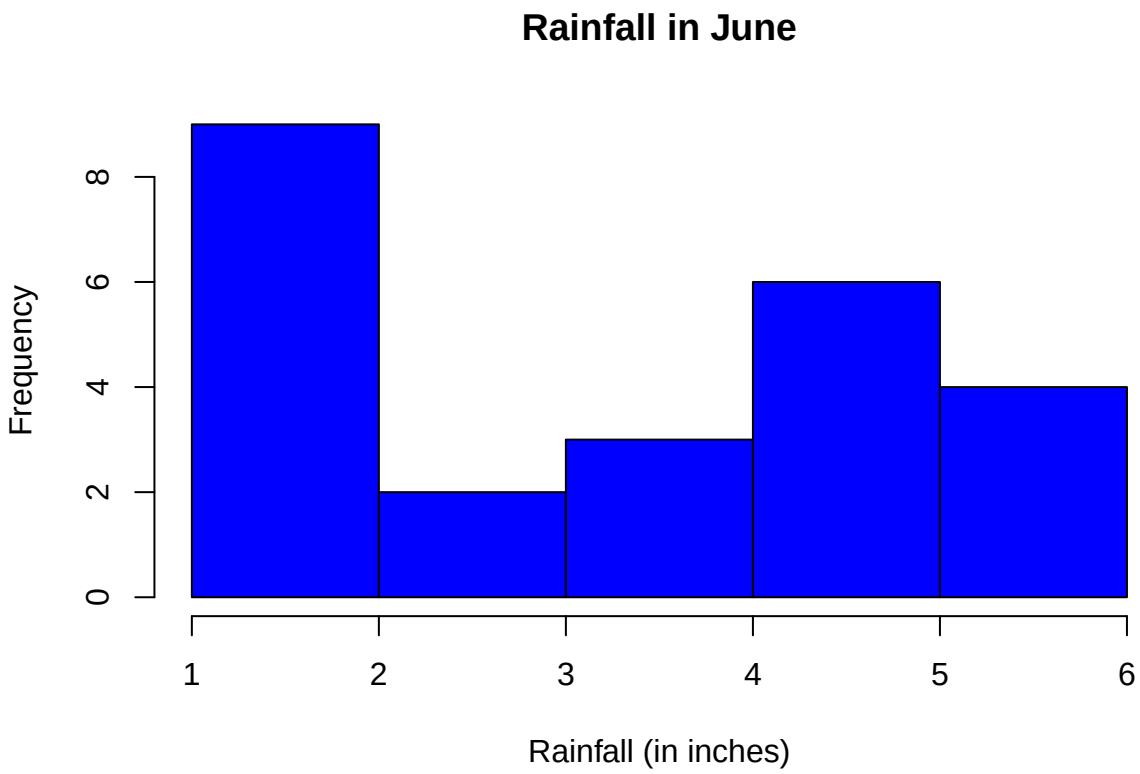

```
# Let's change the main title

hist(inches_of_rain_in_monsoon, main="Rainfall in June", col = c("blue"))
```




```
# Let's change the x axis

hist(inches_of_rain_in_monsoon, main="Rainfall in June", xlab = "Rainfall (in inches)",col = c("blue"))
```


Rainfall in June
Frequency
0
2
4
6
8
1
2
3
4
5
6
Rainfall (in inches)