

# WK3 Assignment 1 of 2

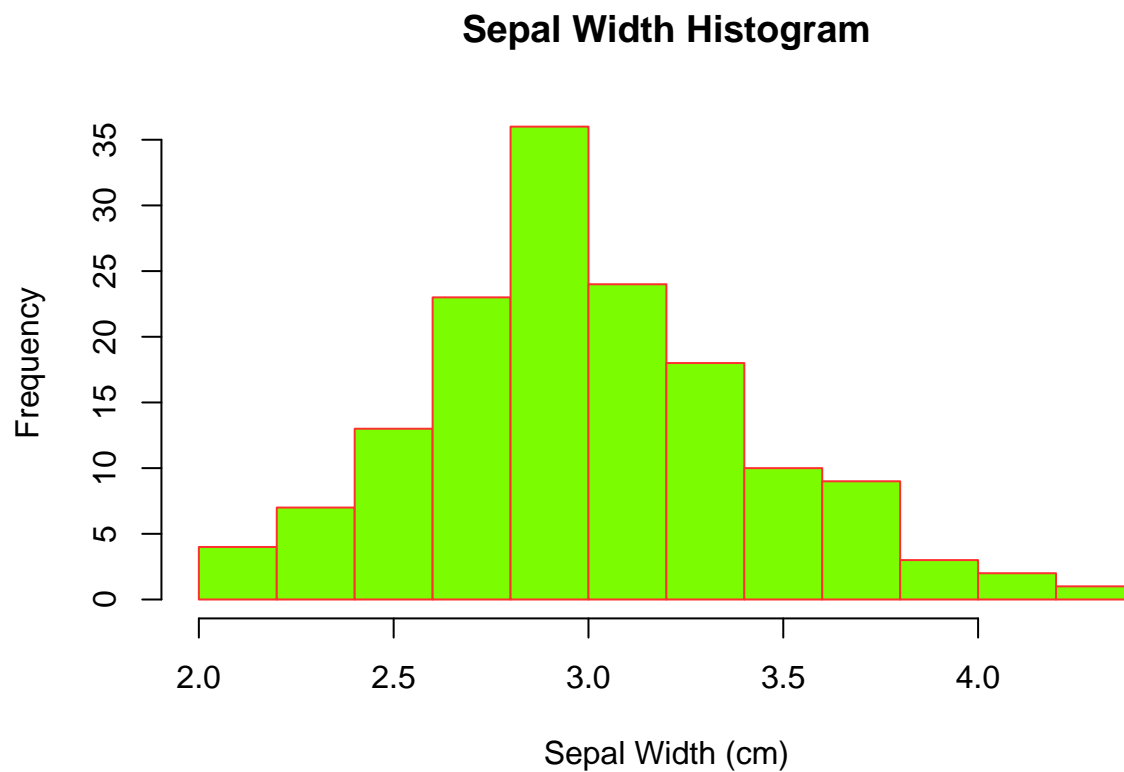
Avi

2025-02-02

```
knitr::opts_chunk$set(echo = TRUE)

data(iris)

hist(iris$Sepal.Width, main="Sepal Width Histogram",
     xlab="Sepal Width (cm)", col = "lawngreen", borde="firebrick1")
```



```
# The histogram is right skewed so I expect the mean to be higher

mean_value <- mean(iris$Sepal.Width)
median_value <- median(iris$Sepal.Width)
mean_value
```

```
## [1] 3.057333
```

```
median_value
```

```
## [1] 3
```

```
quantile(iris$Sepal.Width, 0.73)
```

```
## 73%
```

```
## 3.3
```

```
par(mfrow = c(1,3), mar=c(4,4,3,4))
```

```
species_colors <-
```

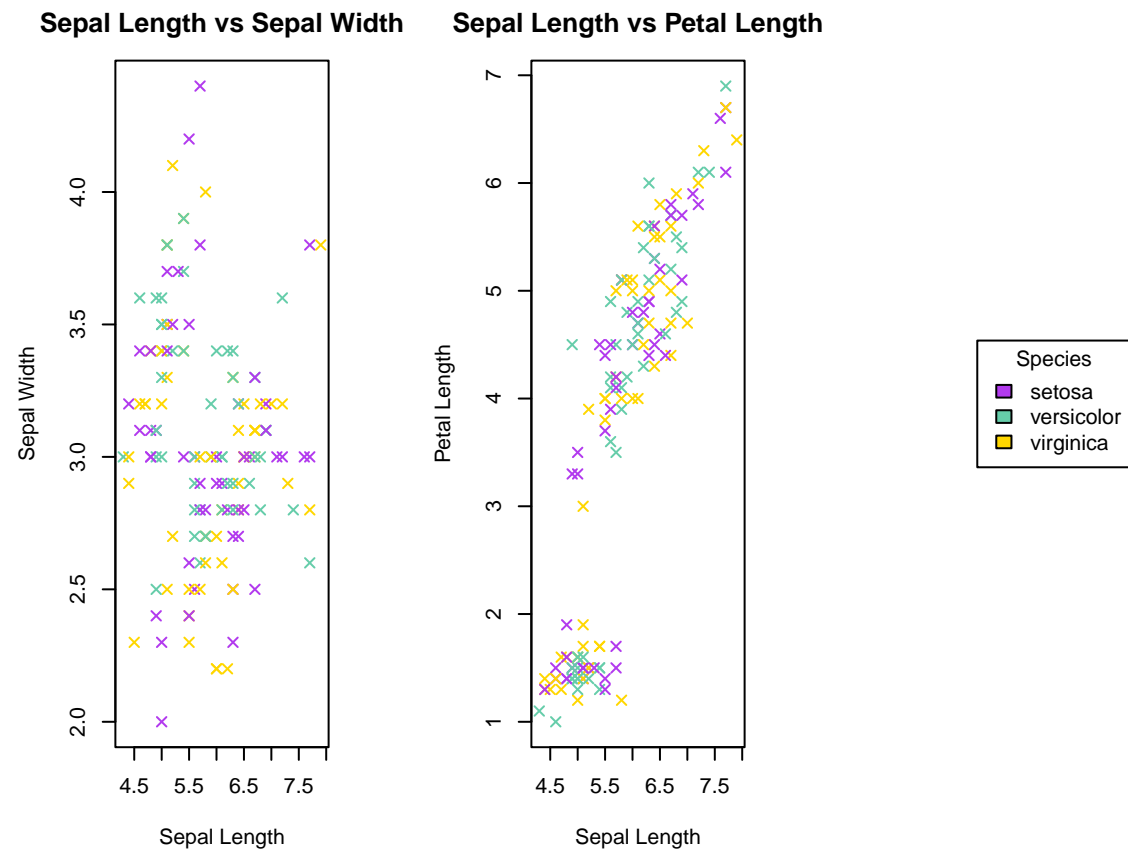
```
  c("setosa" = "darkorchid2", "versicolor" = "aquamarine3", "virginica" = "gold1")
```

```
plot(iris$Sepal.Length, iris$Sepal.Width, col=species_colors, pch=4,  
     xlab="Sepal Length", ylab="Sepal Width", main="Sepal Length vs Sepal Width")
```

```
plot(iris$Sepal.Length, iris$Petal.Length, col=species_colors, pch=4,  
     xlab="Sepal Length", ylab="Petal Length", main="Sepal Length vs Petal Length")
```

```
plot.new()
```

```
legend("center", legend = levels(iris$Species), title="Species", fill = c("darkorchid2", "aquamarine3",
```



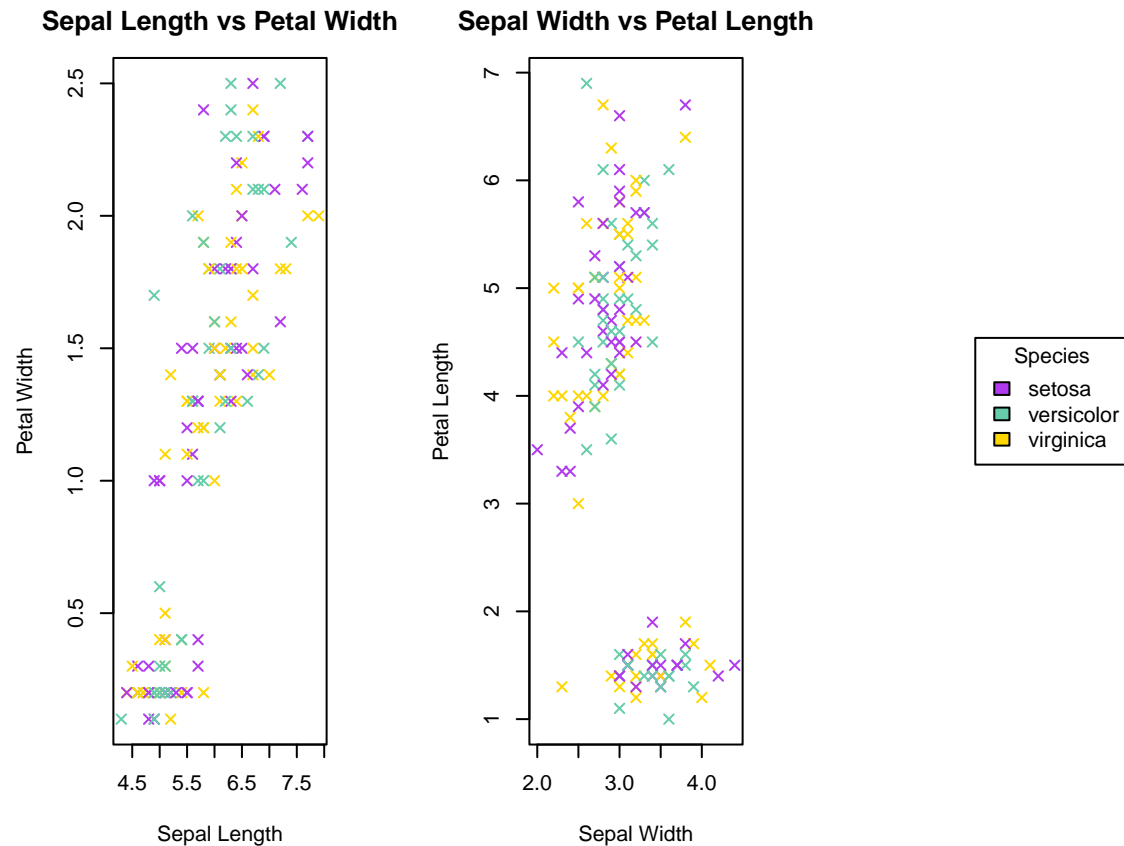
```

plot(iris$Sepal.Length, iris$Petal.Width, col=species_colors, pch=4,
     xlab="Sepal Length", ylab="Petal Width", main="Sepal Length vs Petal Width")

plot(iris$Sepal.Width, iris$Petal.Length, col=species_colors, pch=4,
     xlab="Sepal Width", ylab="Petal Length", main="Sepal Width vs Petal Length")

plot.new()
legend("center", legend = levels(iris$Species), title="Species", fill = c("darkorchid2", "aquamarine3",

```



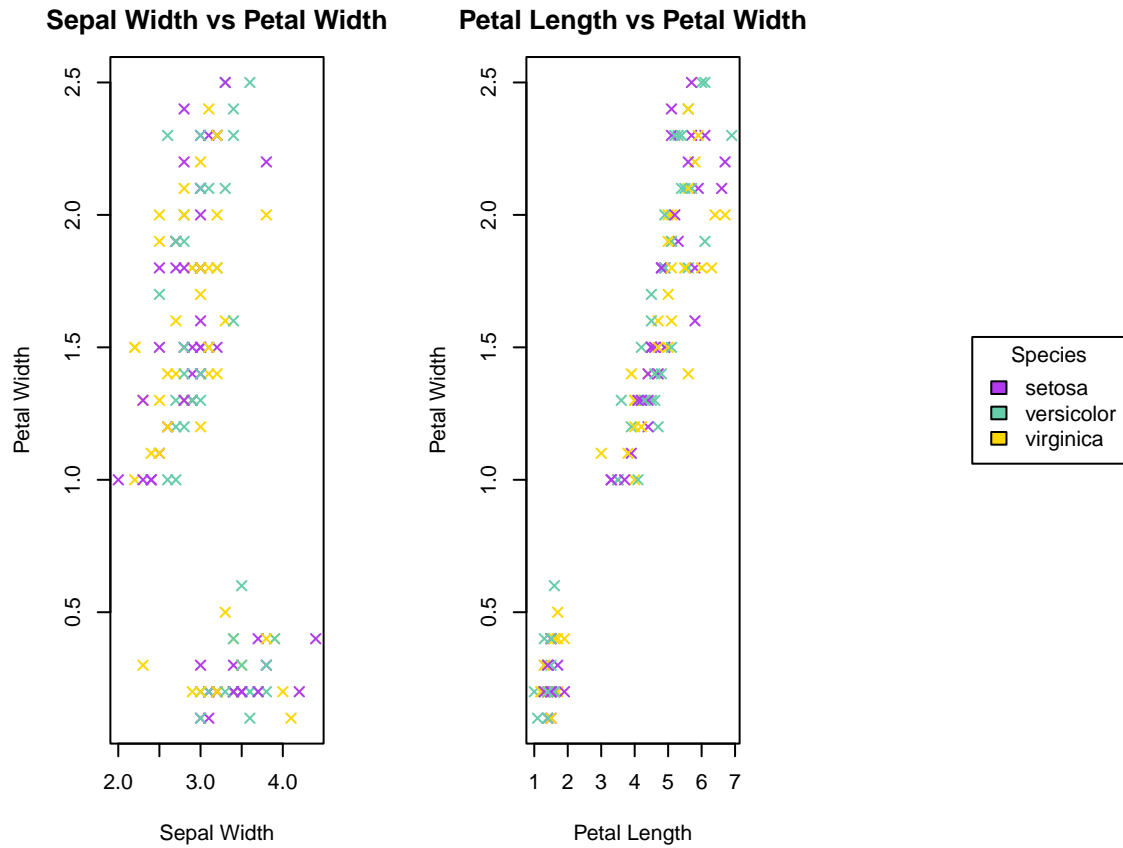
```

plot(iris$Sepal.Width, iris$Petal.Width, col=species_colors, pch=4,
     xlab="Sepal Width", ylab="Petal Width", main="Sepal Width vs Petal Width")

plot(iris$Petal.Length, iris$Petal.Width, col=species_colors, pch=4,
     xlab="Petal Length", ylab="Petal Width", main="Petal Length vs Petal Width")

plot.new()
legend("center", legend = levels(iris$Species), title="Species", fill = c("darkorchid2", "aquamarine3",

```



*# Sepal Length vs Petal Length and Petal Length vs Petal Width have the strongest relationship*  
*# Sepal Length vs Sepal Width and Sepal Length vs Petal Width seem to have the weakest relationship*