

Homework Batch 11

Jinnapat Earn

2025-02-24

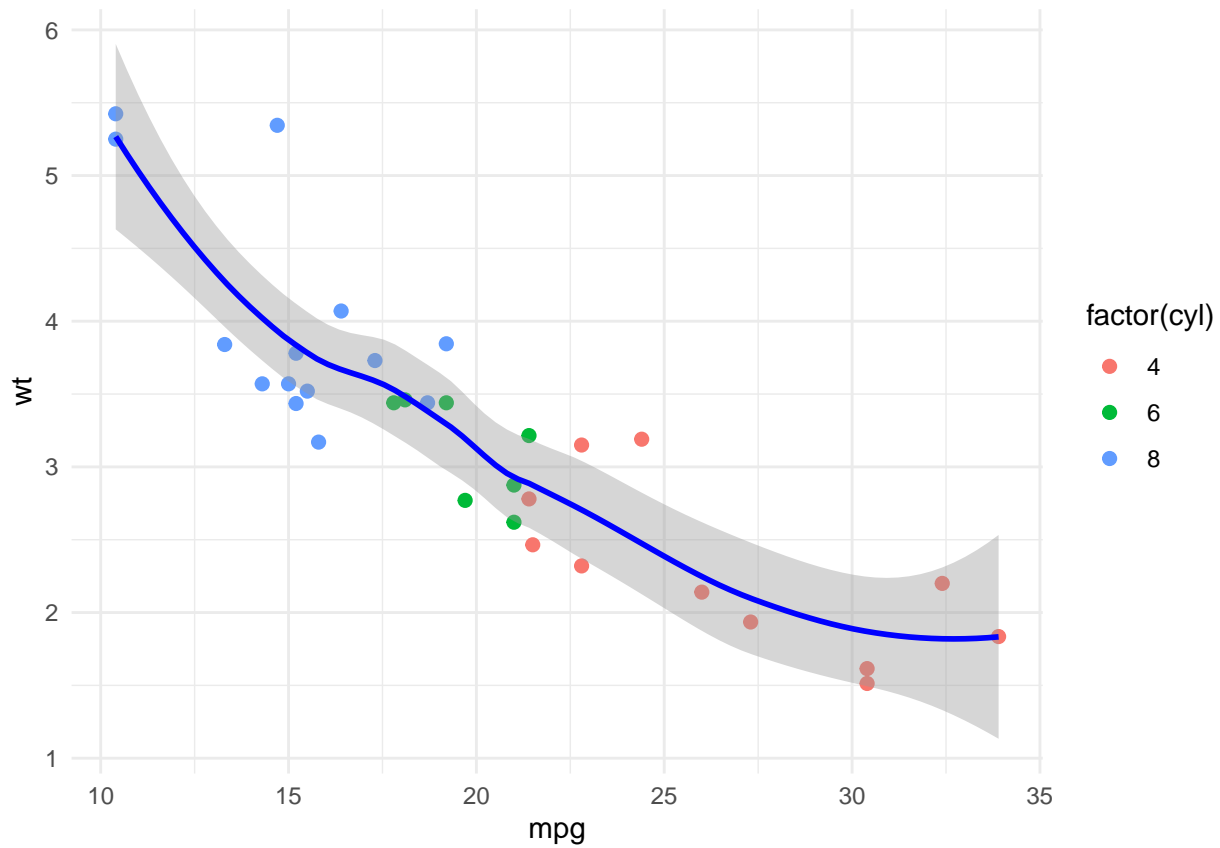
Homework

Scatter plot

```
library(ggplot2)

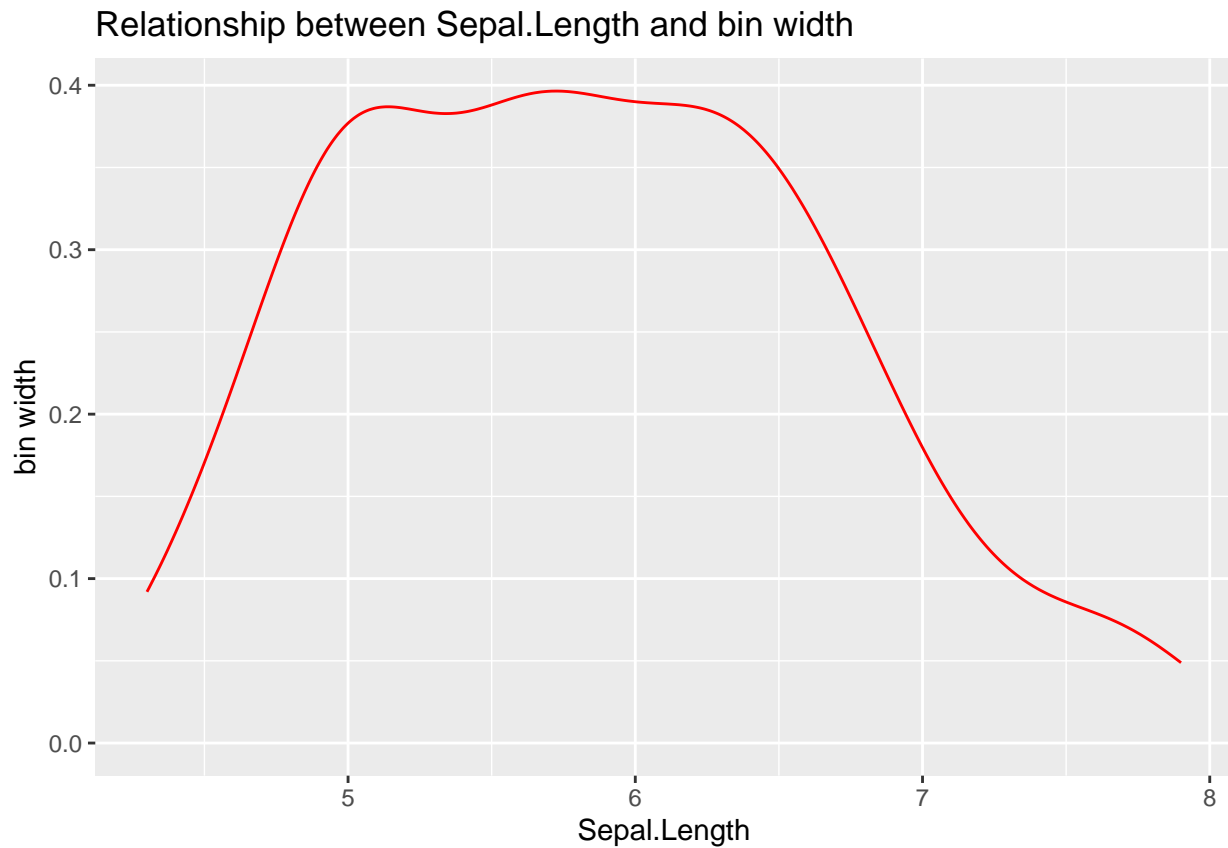
ggplot(data = mtcars,
mapping = aes(x = mpg, y = wt, color = factor (cyl) )) +
geom_point(size= 2 ) +
geom_smooth(method = "loess", se= TRUE, col= "blue" ) +
theme_minimal()
```

```
## `geom_smooth()` using formula = 'y ~ x'
```



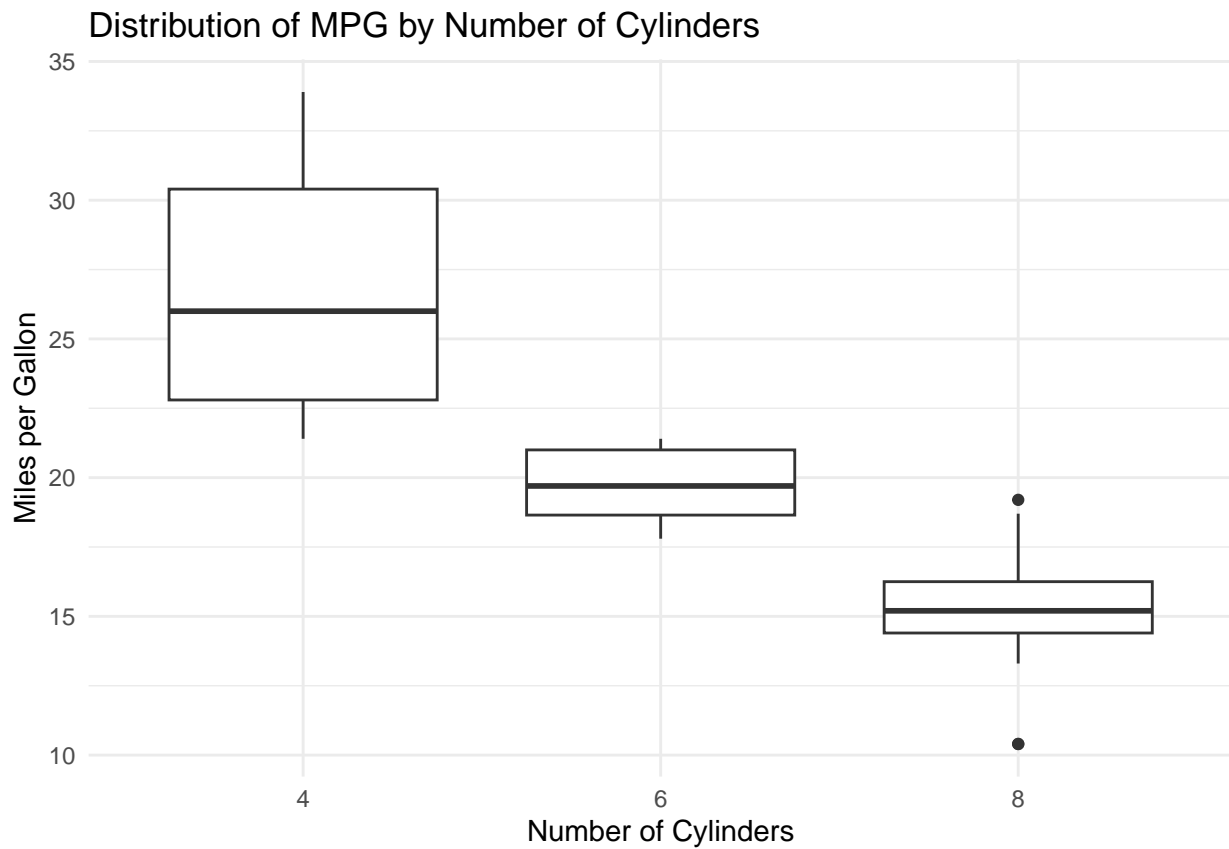
Desity

```
ggplot(iris, aes(x= Sepal.Length)) +  
  geom_density(col = "red") +  
  labs(title = "Relationship between Sepal.Length and bin width",  
        x = "Sepal.Length",  
        y = "bin width")
```



Box plot

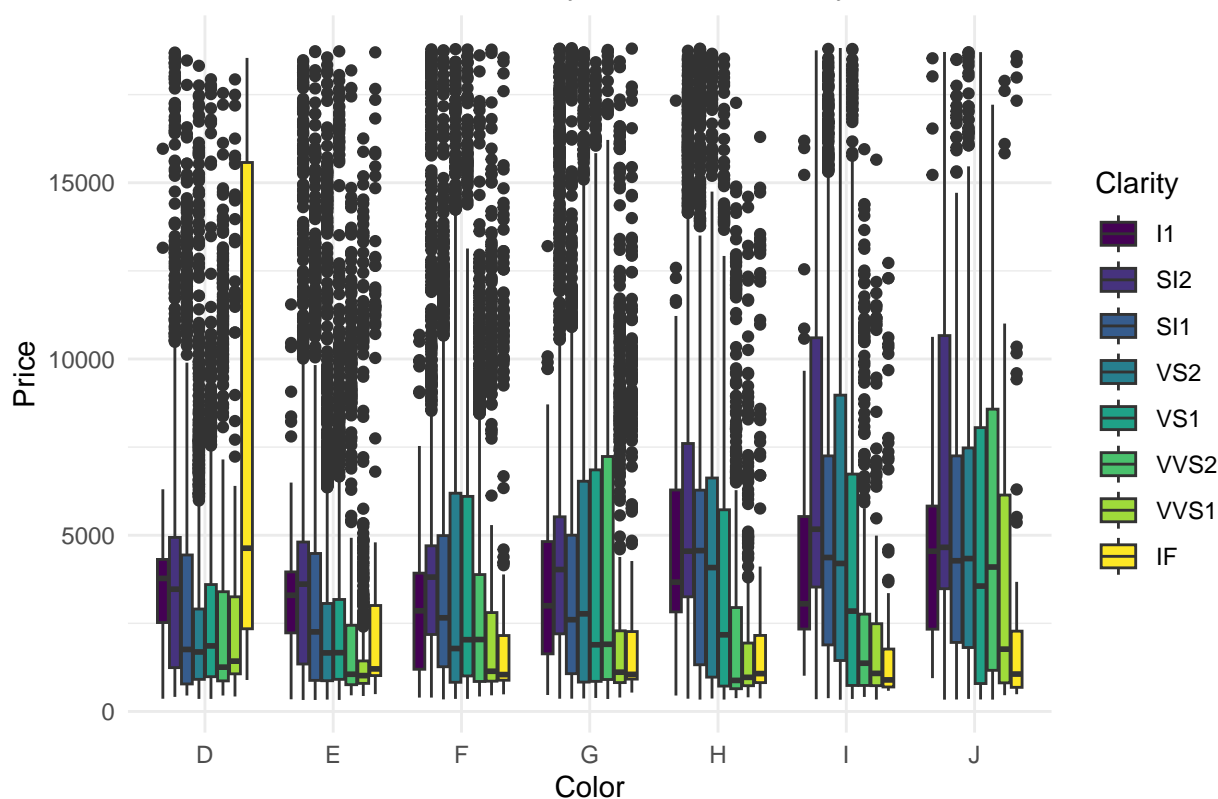
```
ggplot(mtcars, aes(x = factor(cyl), y = mpg)) +  
  geom_boxplot() +  
  labs(title = "Distribution of MPG by Number of Cylinders",  
        x = "Number of Cylinders",  
        y = "Miles per Gallon") +  
  theme_minimal()
```



Box plot

```
ggplot(data = diamonds, aes(x = color, y = price, fill = clarity)) +  
  geom_boxplot() +  
  labs(title = "Diamond Price Distribution by Color and Clarity",  
        x = "Color",  
        y = "Price",  
        fill = "Clarity") +  
  theme_minimal()
```

Diamond Price Distribution by Color and Clarity

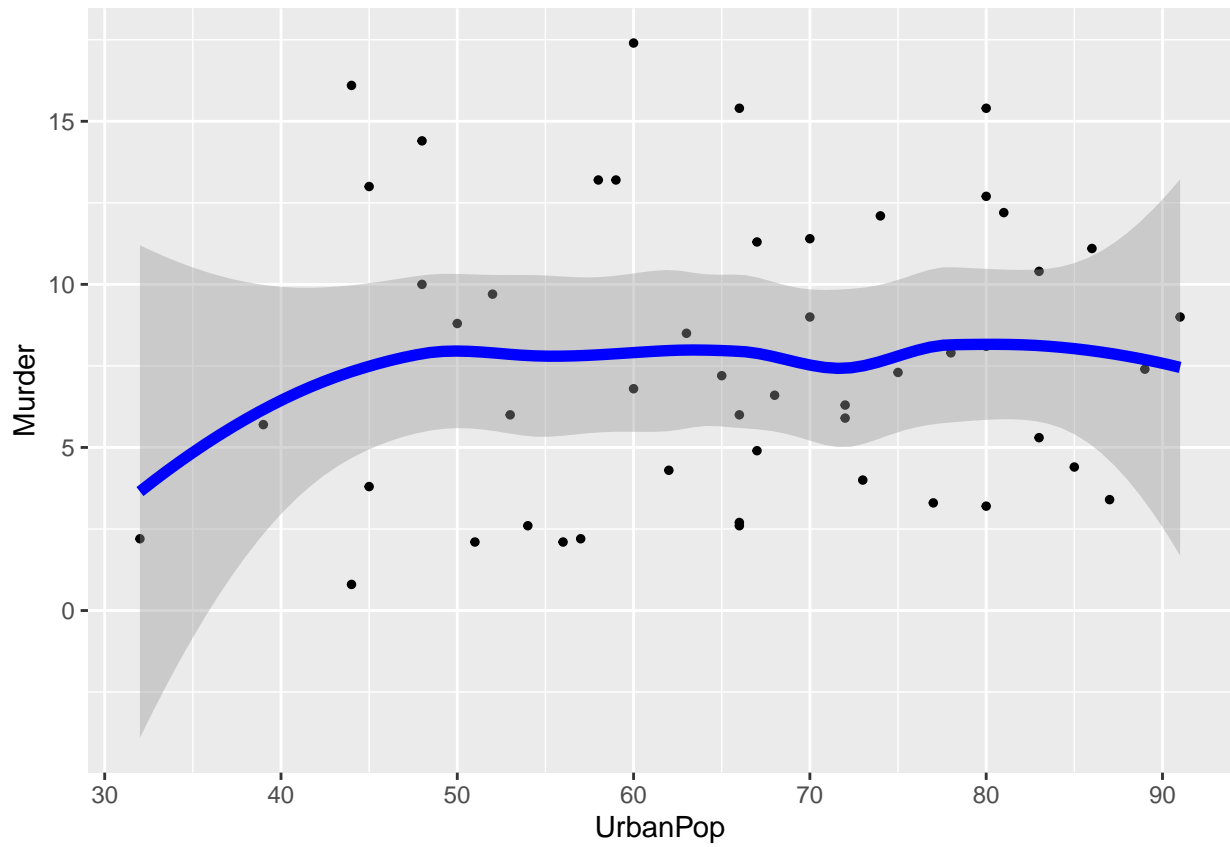


Scatter plot

```
ggplot(USArrests, aes(x = UrbanPop, y = Murder )) +
  geom_point(size = 1) +
  geom_smooth(method = "loess", size = 2, color = "blue")
```

```
## Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use `linewidth` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.

## `geom_smooth()` using formula = 'y ~ x'
```



```
labs(title = "Murder Rate vs. Urban Population",  
      x = "Percentage of Urban Population",  
      y = "Murder Rate (per 100,000)") +  
theme_minimal()
```

```
## NULL
```