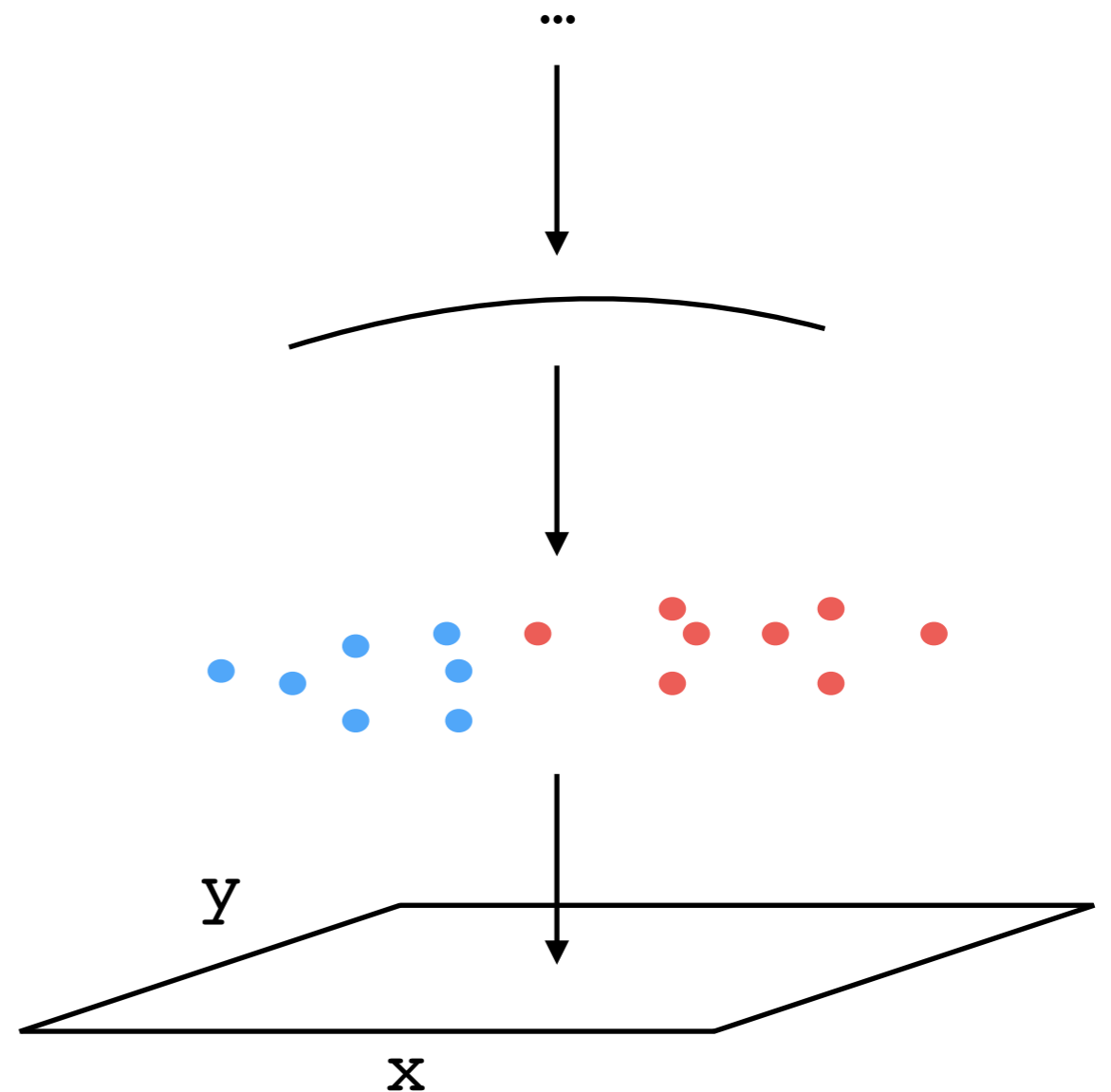


More about ggp1ot2

Lab 2
1/25/17

Layers in ggplot

```
...  
+  
geom_line()  
+  
geom_point(aes(color=z))  
+  
ggplot(data, aes(x=x, y=y))
```

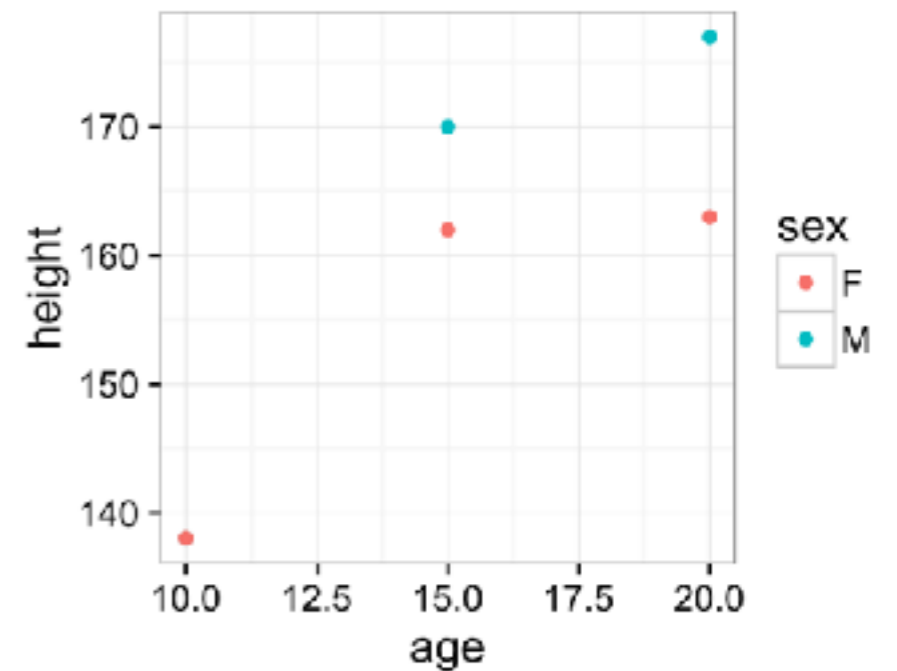


In real life we make plots differently

```
ggplot(data, aes(x=age,  
y=height, color=sex)) +  
  geom_point()
```

In class

In real life



We want to visualize data in the data set Cars93

```
Console ~/Desktop/projects/ ↵
> head(Cars93)
```

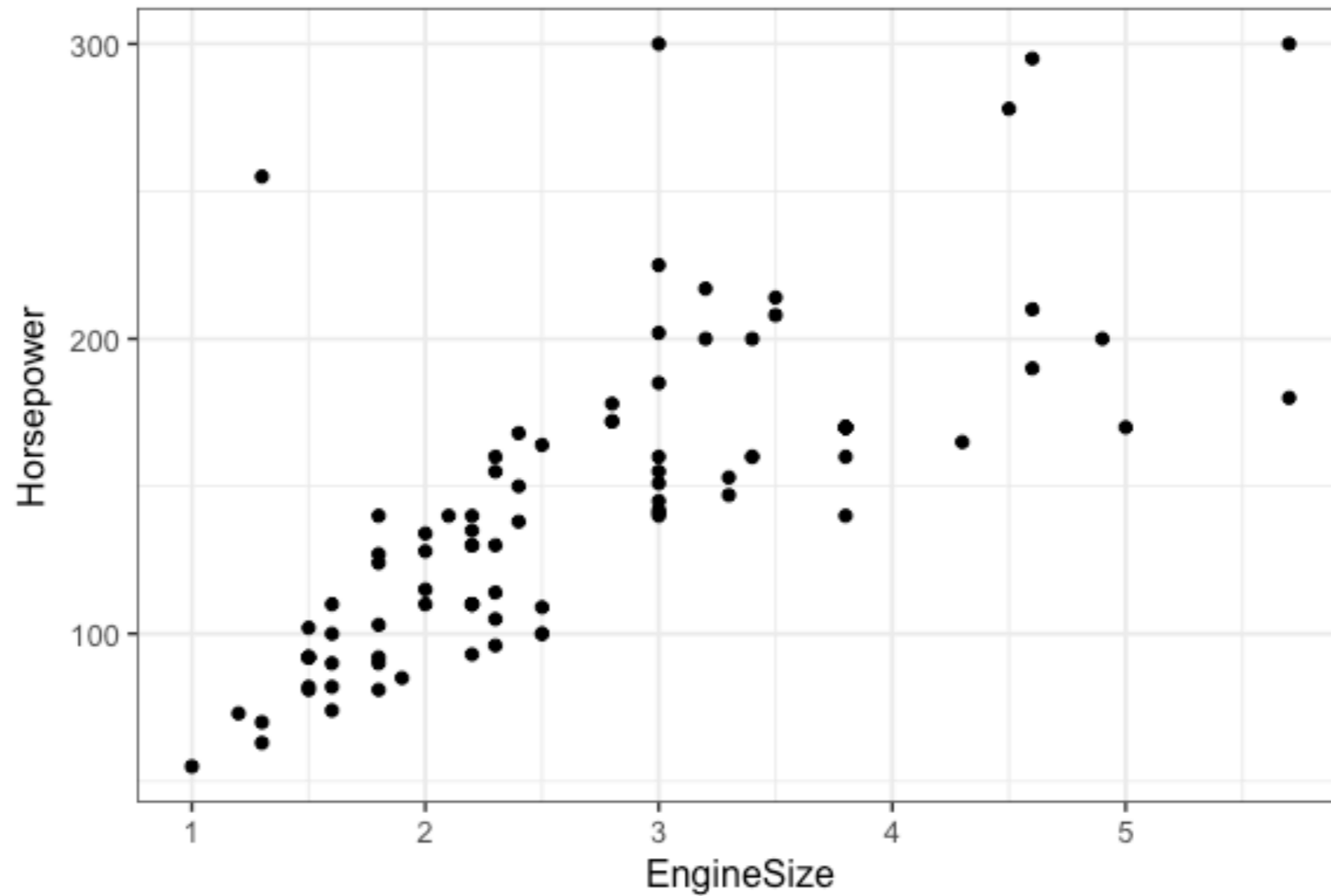
	Manufacturer	Model	Type	Min.Price	Price	Max.Price	MPG.city	MPG.highway
1	Acura	Integra	Small	12.9	15.9	18.8	25	31
2	Acura	Legend	Midsize	29.2	33.9	38.7	18	25
3	Audi	90	Compact	25.9	29.1	32.3	20	26
4	Audi	100	Midsize	30.8	37.7	44.6	19	26
5	BMW	535i	Midsize	23.7	30.0	36.2	22	30
6	Buick	Century	Midsize	14.2	15.7	17.3	22	31

	AirBags	DriveTrain	Cylinders	EngineSize	Horsepower	RPM	Rev.per.mile
1	None	Front	4	1.8	140	6300	2890
2	Driver & Passenger	Front	6	3.2	200	5500	2335
3	Driver only	Front	6	2.8	172	5500	2280
4	Driver & Passenger	Front	6	2.8	172	5500	2535
5	Driver only	Rear	4	3.5	208	5700	2545
6	Driver only	Front	4	2.2	110	5200	2565

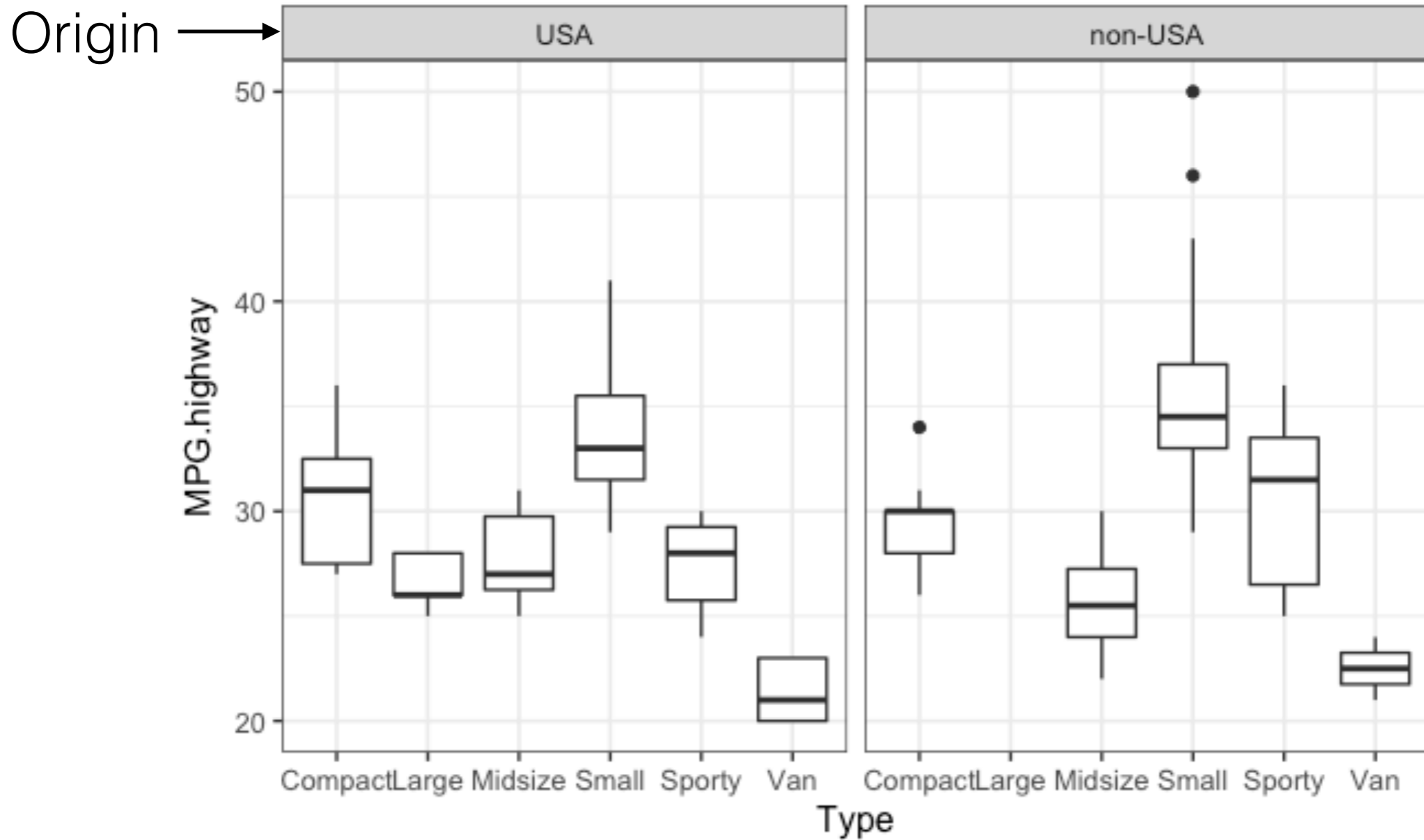
	Man.trans.avail	Fuel.tank.capacity	Passengers	Length	Wheelbase	Width	Turn.circle
1	Yes	13.2	5	177	102	68	37
2	Yes	18.0	5	195	115	71	38
3	Yes	16.9	5	180	102	67	37
4	Yes	21.1	6	193	106	70	37
5	Yes	21.1	4	186	109	69	39
6	No	16.4	6	189	105	69	41

	Rear.seat.room	Luggage.room	Weight	Origin	Make
1	26.5	11	2705	non-USA	Acura Integra
2	30.0	15	3560	non-USA	Acura Legend
3	28.0	14	3375	non-USA	Audi 90
4	31.0	17	3405	non-USA	Audi 100
5	27.0	13	3640	non-USA	BMW 535i
6	28.0	16	2880	USA	Buick Century

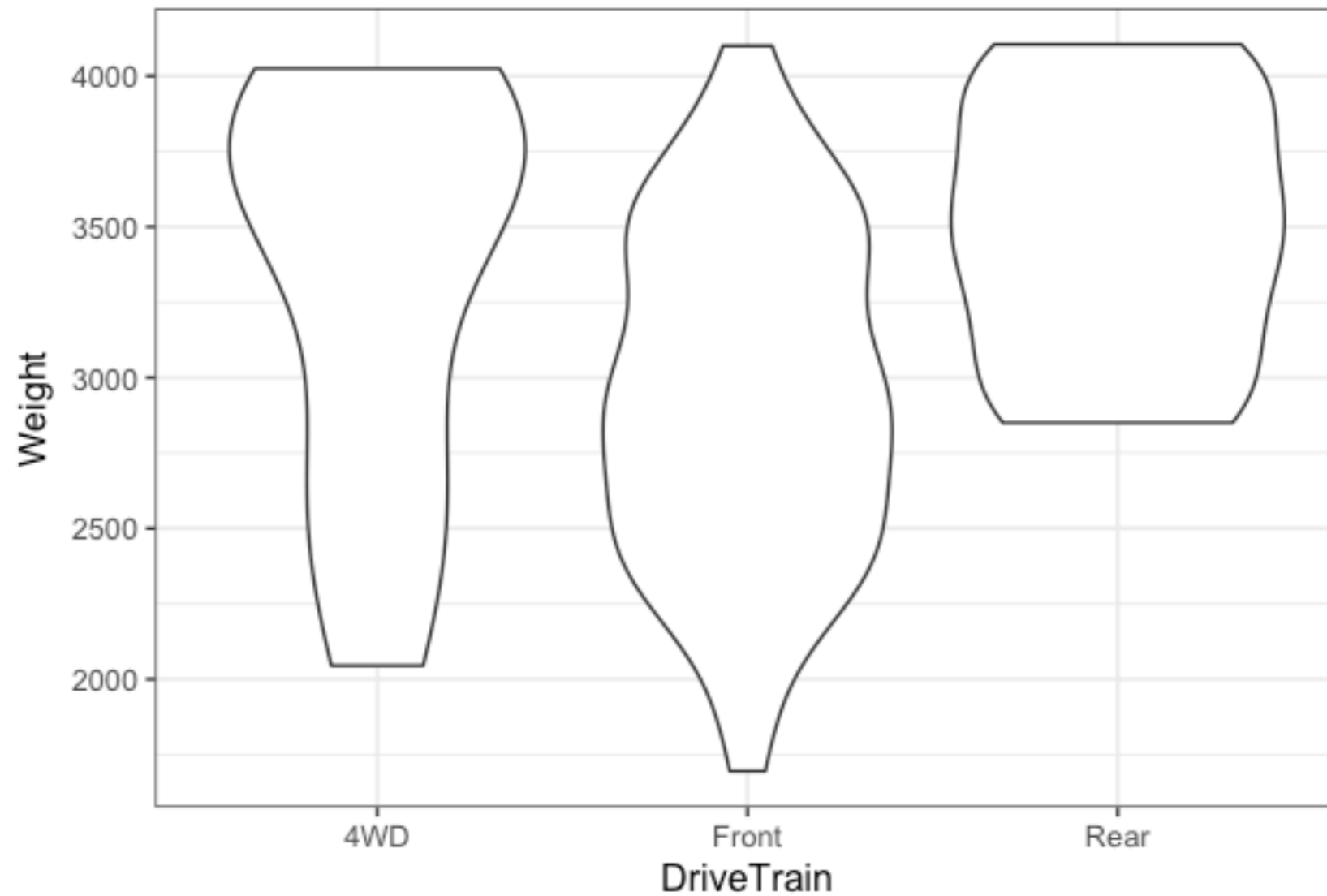
```
ggplot(Cars93, aes(x=EngineSize, y=Horsepower))  
  + geom_point()
```



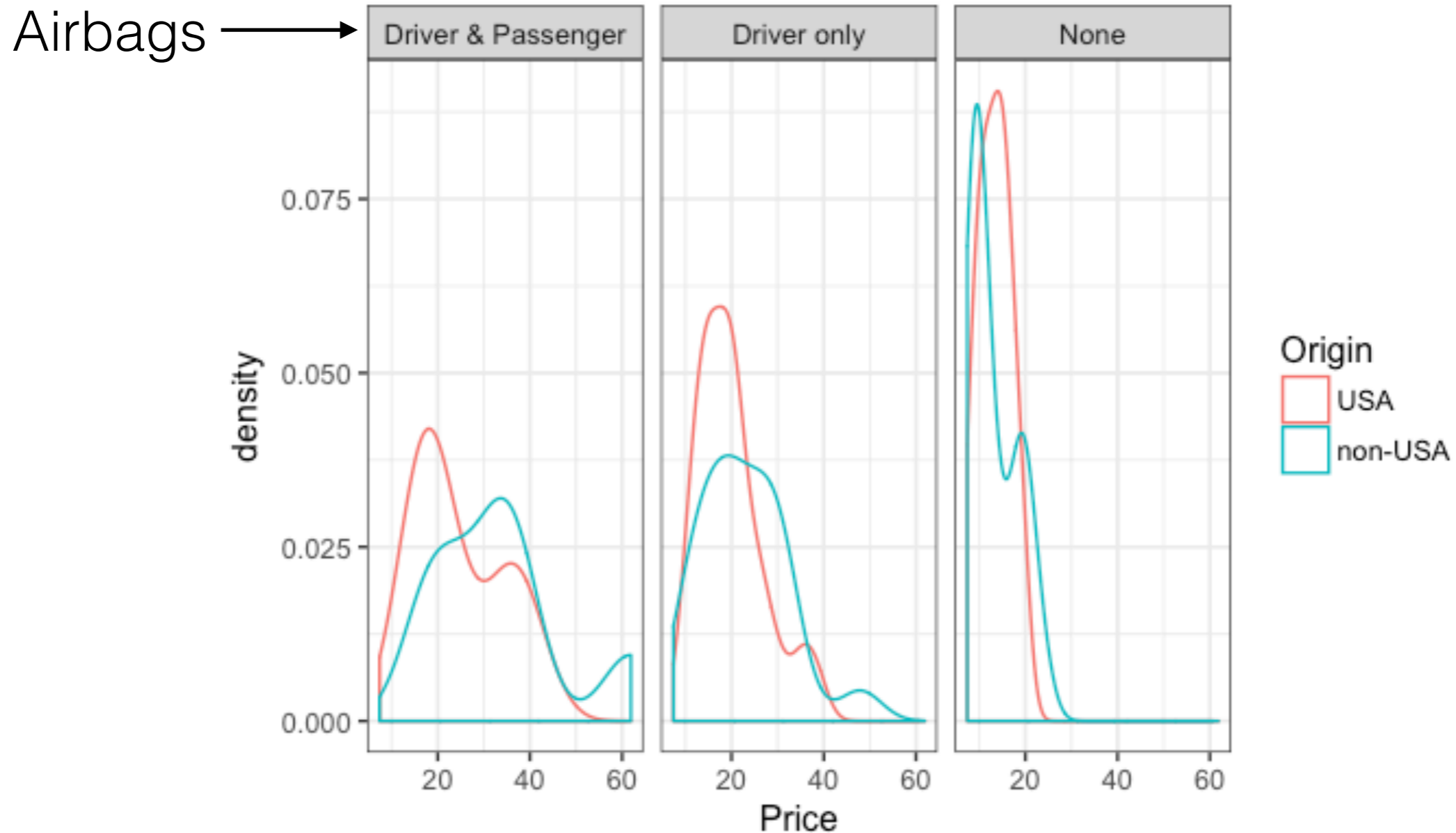

```
ggplot(Cars93, aes(x=Type, y=MPG.highway)) +  
  geom_boxplot() + facet_wrap(~Origin)
```



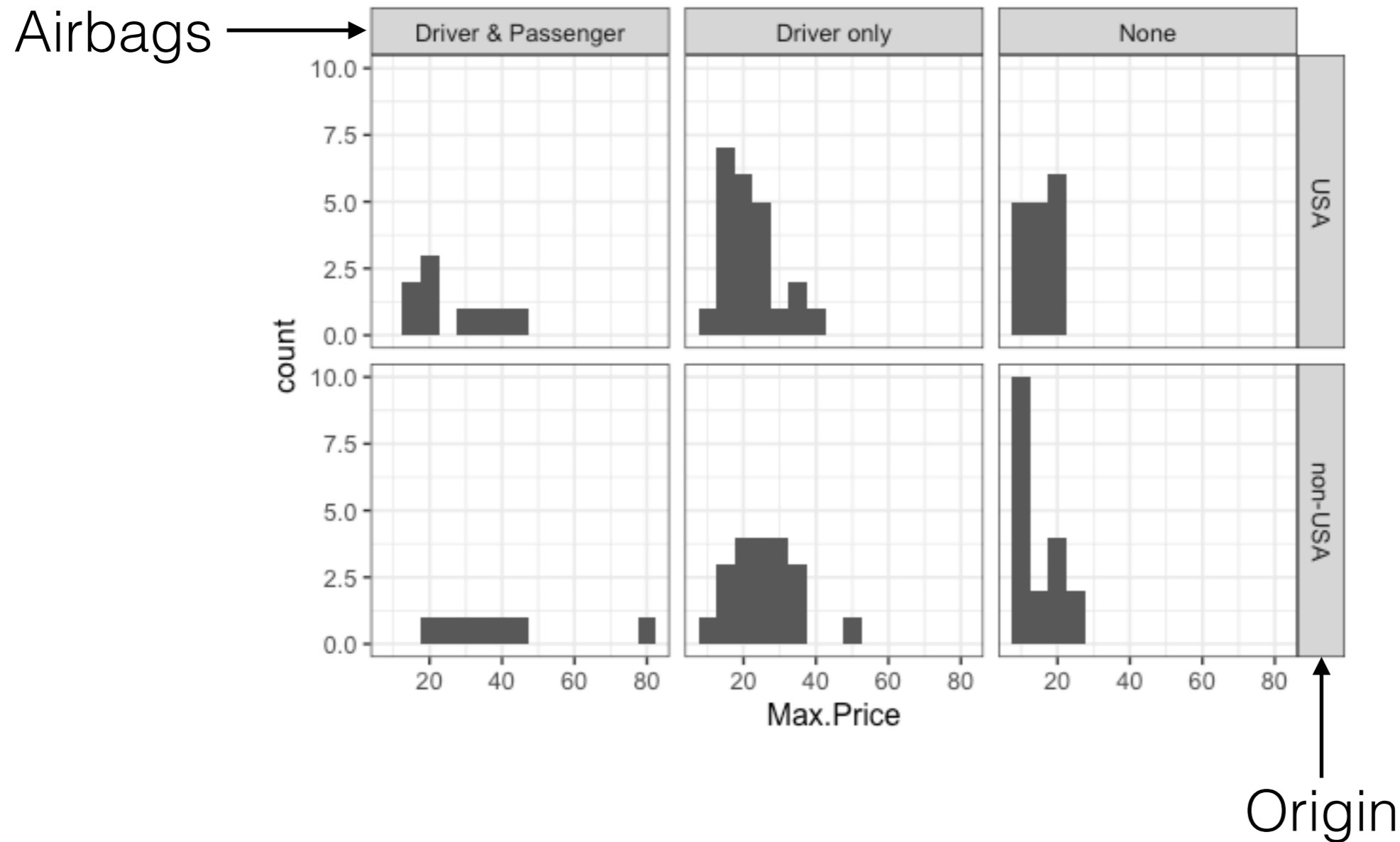
```
ggplot(Cars93, aes(x=DriveTrain, y=Weight)) +  
  geom_violin()
```



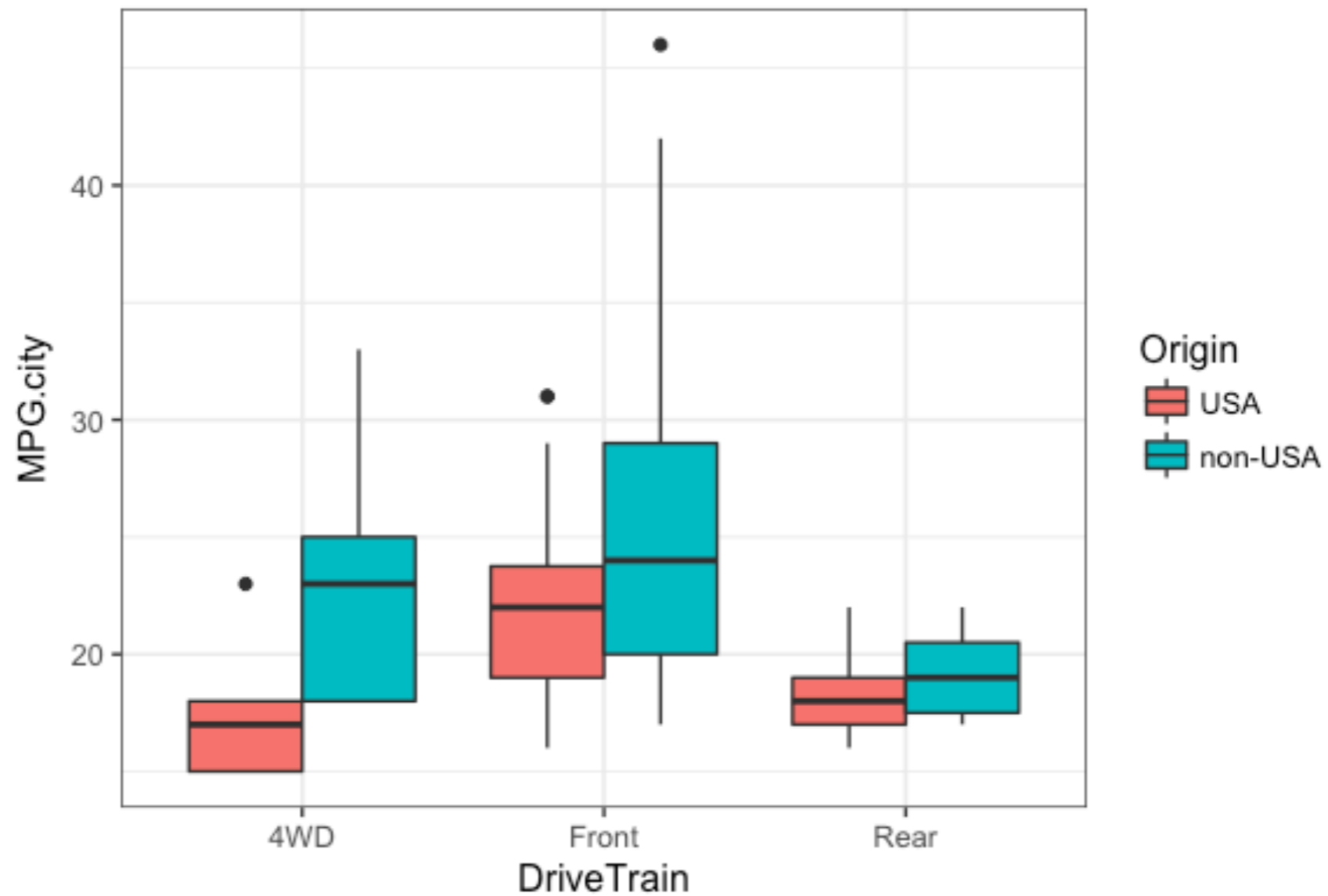

```
ggplot(Cars93, aes(x=Price)) +  
  geom_density(aes(color=Origin)) +  
  facet_wrap(~AirBags)
```



```
ggplot(Cars93, aes(x=Max.Price)) +  
  geom_histogram(binwidth=5) +  
  facet_grid(Origin~AirBags)
```



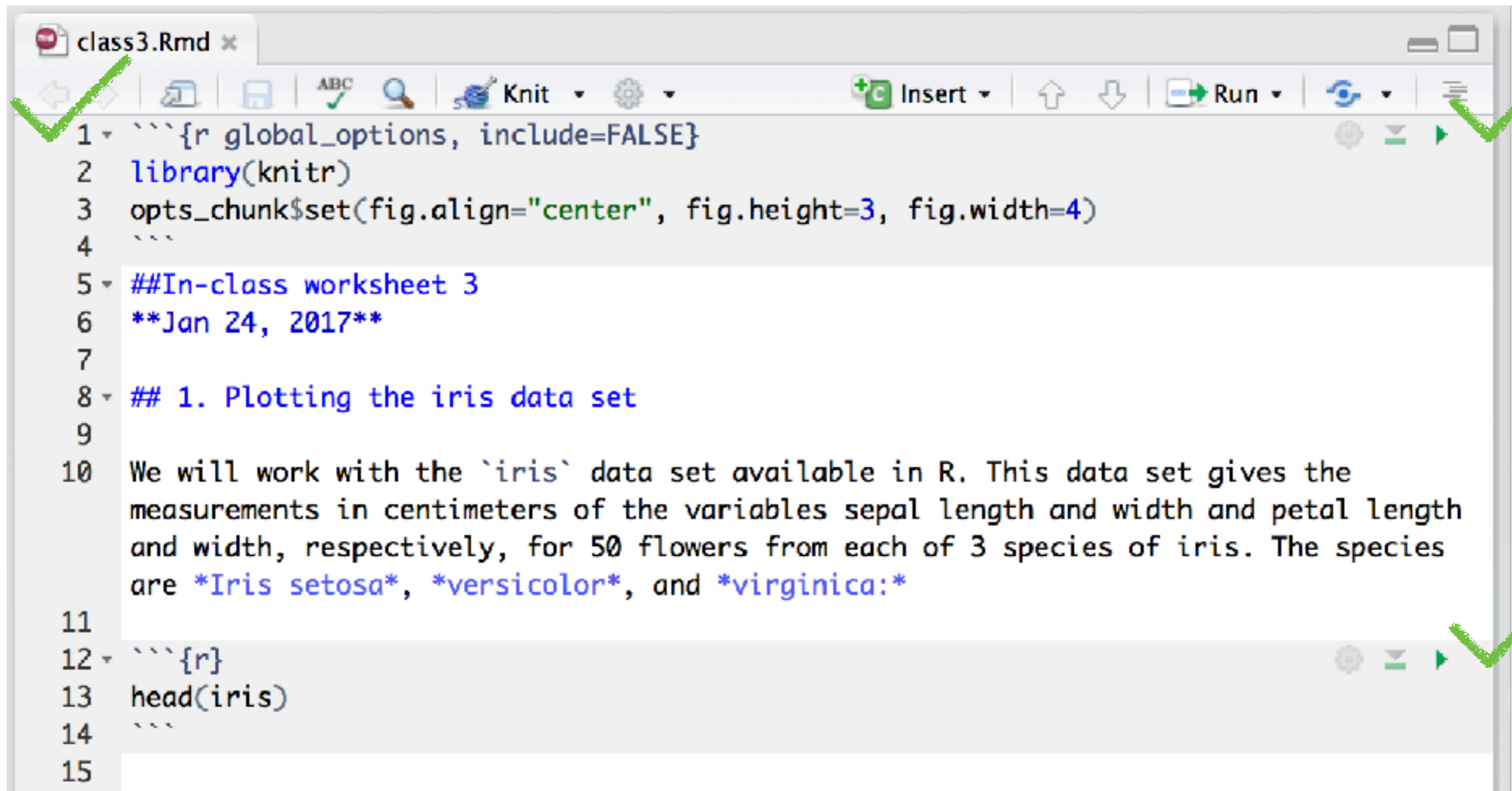
```
ggplot(Cars93, aes(x=DriveTrain, y=MPG.city))  
  + geom_boxplot(aes(fill=Origin))
```



--- at the begging of .Rmd file

```
class3.Rmd
---
2  ```{r global_options, include=FALSE}
3  library(knitr)
4  opts_chunk$set(fig.align="center", fig.height=3, fig.width=4)
5  ```
6  ## In-class worksheet 3
7  **Jan 24, 2017**
8
9  ## 1. Plotting the iris data set
10
11  We will work with the `iris` data set available in R. This data set gives the
12  measurements in centimeters of the variables sepal length and width and petal length
13  and width, respectively, for 50 flowers from each of 3 species of iris. The species
14  are Iris setosa, versicolor, and virginica:
15  ```{r}
16  head(iris)
```

--- at the beginning of .Rmd file



```
class3.Rmd *
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3  opts_chunk$set(fig.align="center", fig.height=3, fig.width=4)
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    are Iris setosa, versicolor, and virginica:
11
12 ````{r}
13 head(iris)
14 ````
15
```