Data Visualization Lab

```
library(tidyverse)
```

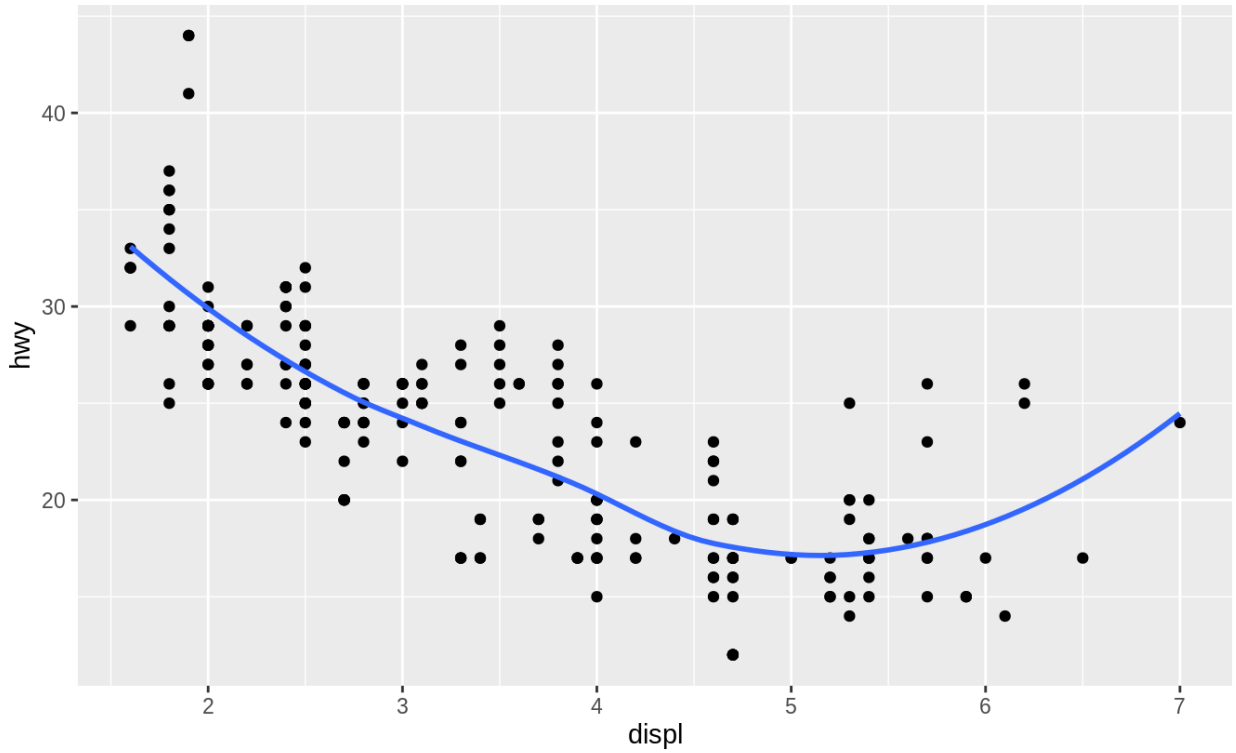
```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.5.1     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.1
## v purrr     1.0.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

Assignment Instructions In this assignment you will recreate five graphs using ggplot2 and the mpg dataset. You will need to run the code block for each question to view the graph you will need to reproduce.

After completing the assignment, knit your document, and download both your .Rmd and knitted output. Upload your files for peer review.

For each response, include comments detailing your response and what each argument in the ggplot function does.

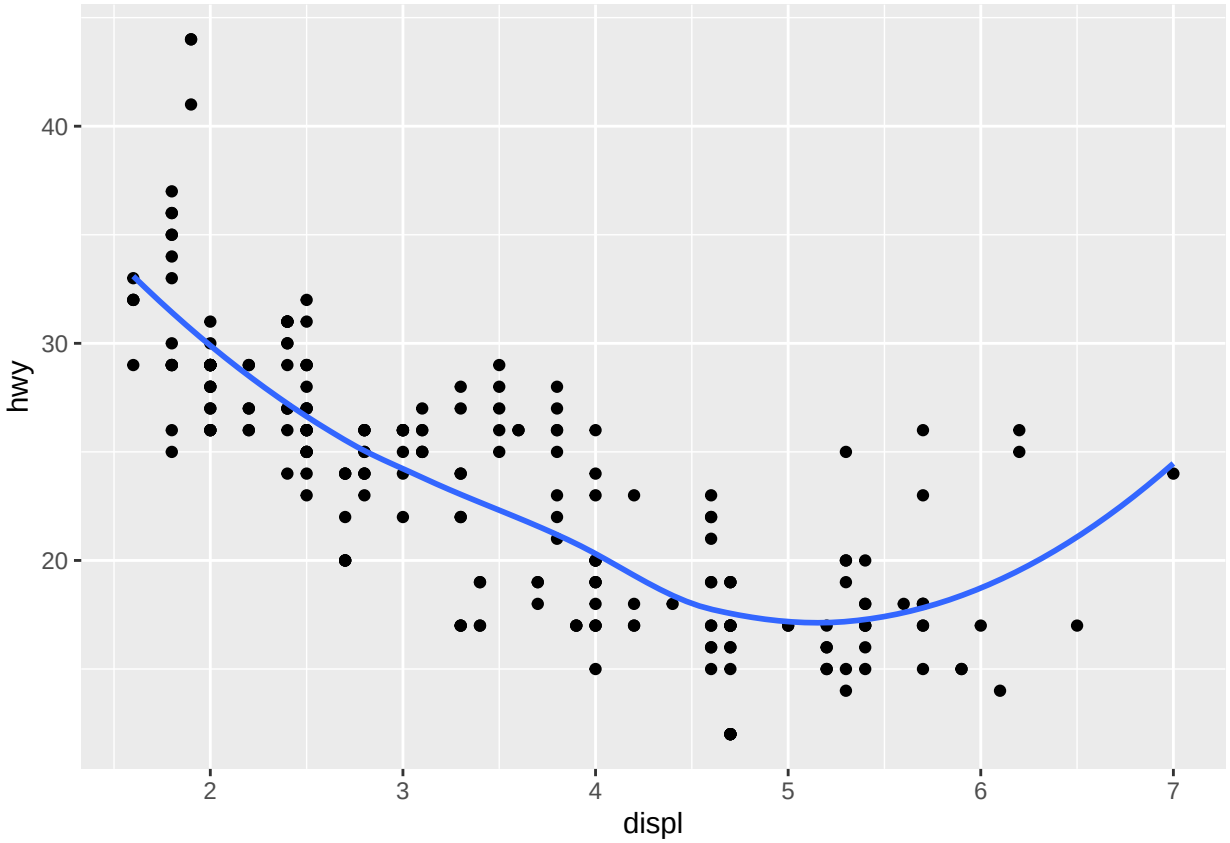
```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-1.png")
```



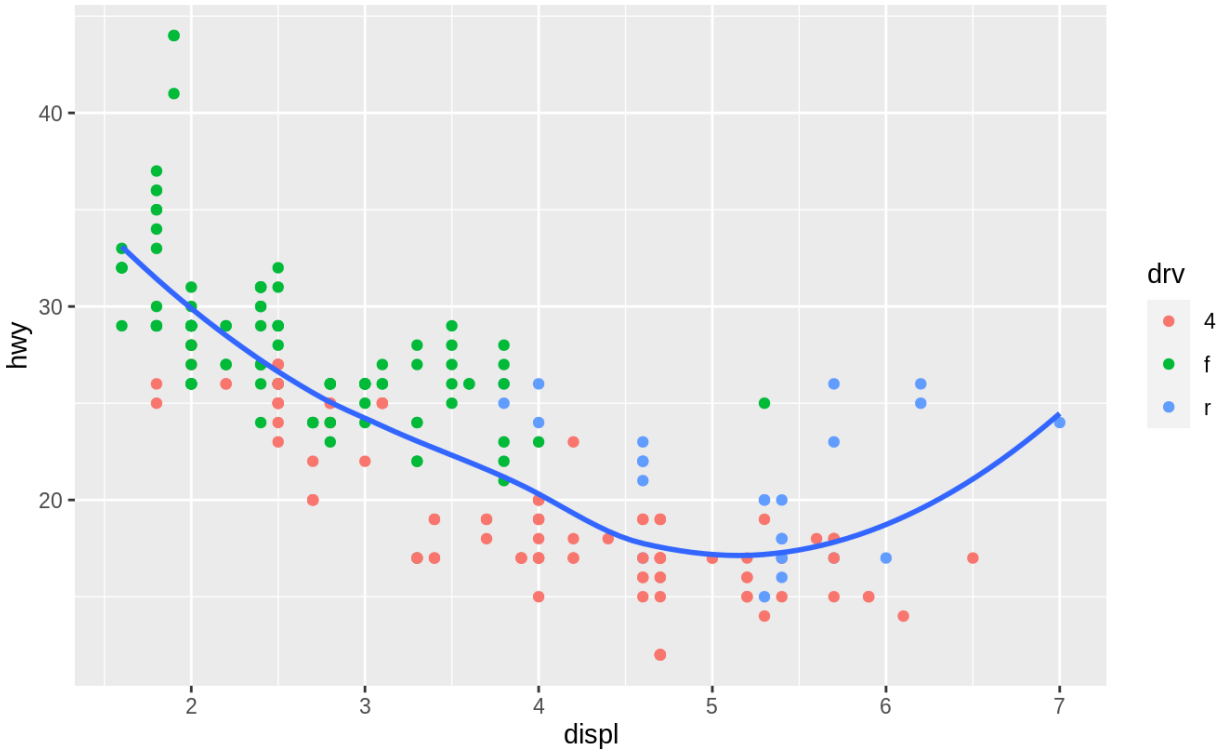
Question 1.

```
# creating a ggplot from the mpg dataset
ggplot(data = mpg) +
  # definition of the point geom
  geom_point(mapping = aes(x = displ, y = hwy)) +
  # definition of the smooth geom
  geom_smooth(mapping = aes(x = displ, y = hwy), se = FALSE)
```

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

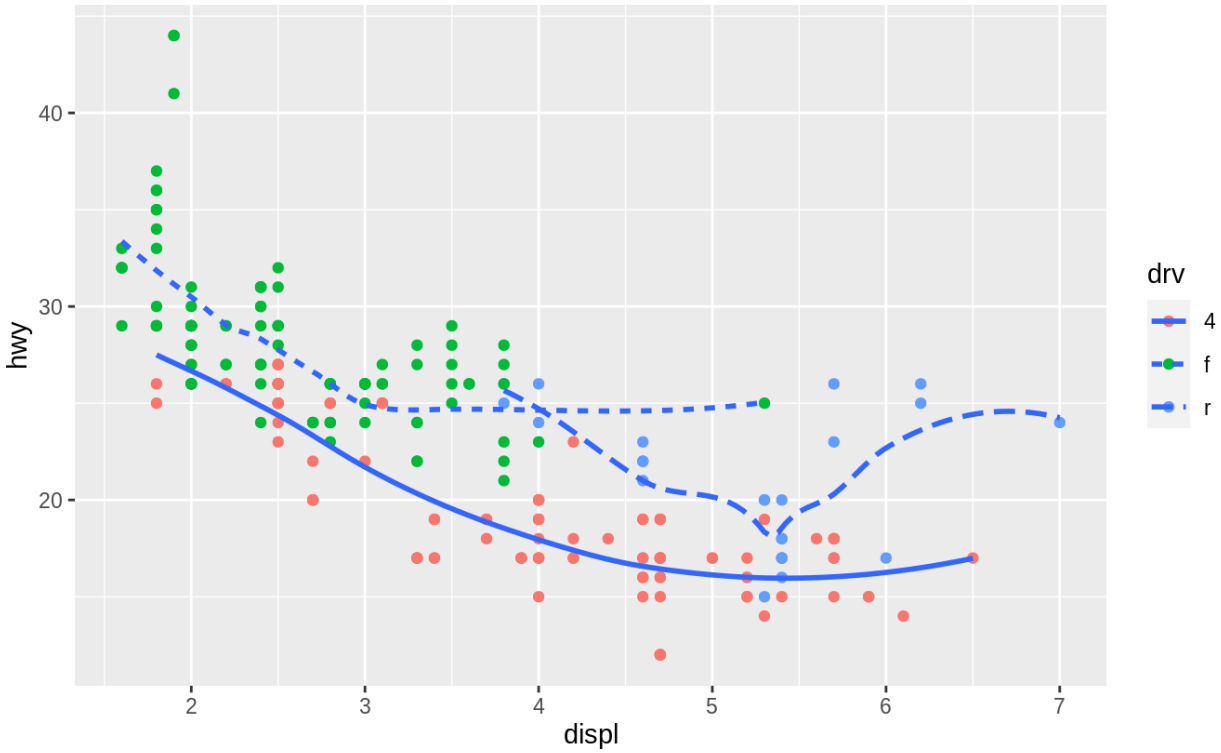



```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-2.png")
```



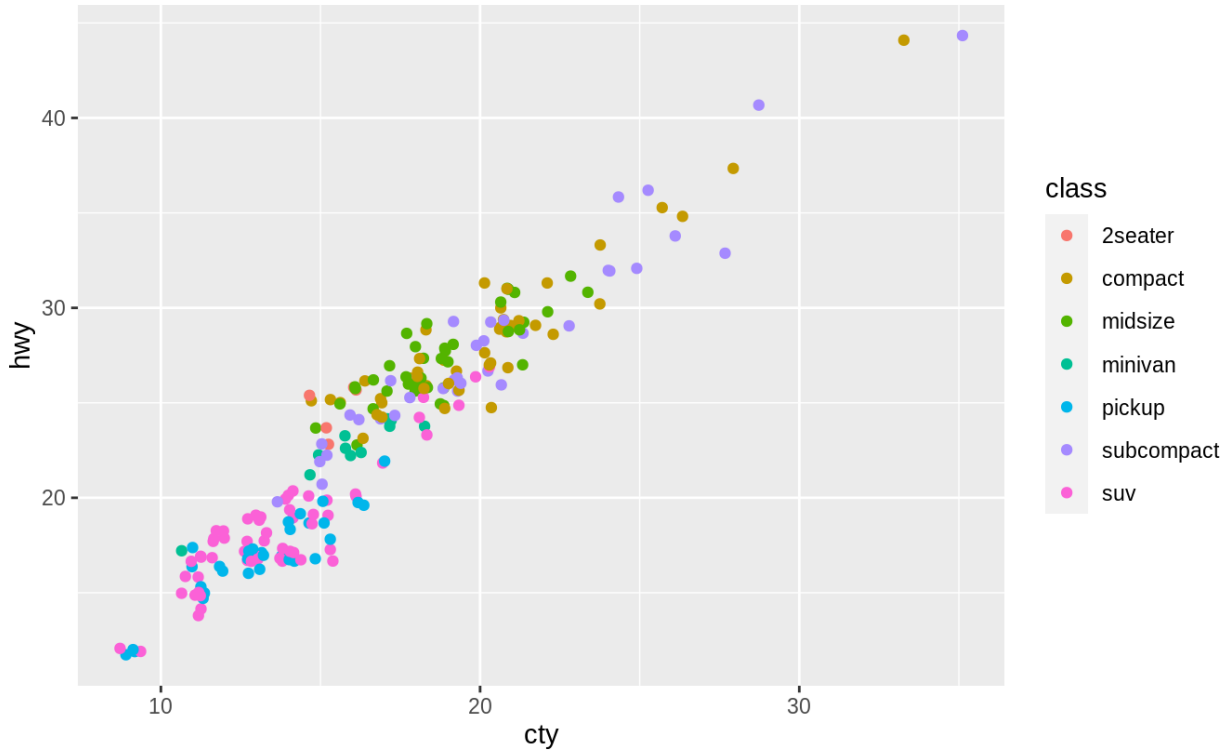
Question 2.

```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-3.png")
```



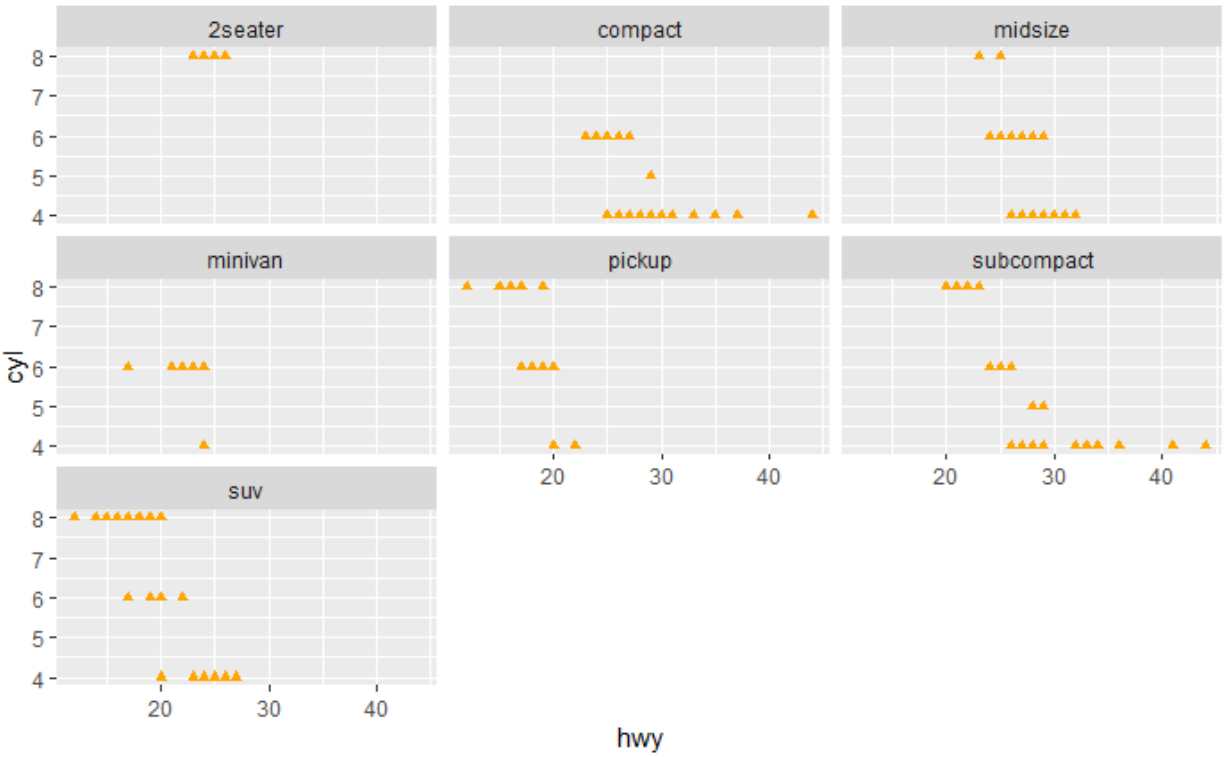
Question 3.

```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-4.png")
```



Question 4.

```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-5.png")
```


2seater
compact
midsize
minivan
pickup
subcompact
suv
cyl
hwy
8
7
6
5
4
20
30
40

Question 5.