

Quiz 1

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

```
library(tidyverse)
```

mpg data

```
mpg
```

1. Remove the the cluster of points from the "2seater" class to create a new dataset.

```
mpg_new <- mpg |>  
  filter(class != "2seater")  
mpg_new
```

2. Use a scatter plot to visualize the relationship between highway fuel efficiency (hwy) and the displacement of its engine (displ).

```
ggplot(mpg_new, aes(x = displ, y = hwy)) +  
  geom_point() +  
  labs(title = "Highway Fuel Efficiency vs Engine Displacement",  
        x = "Engine Displacement (L)",  
        y = "Highway Fuel Efficiency (mpg)")
```

3. Filter the data to select the points where cty < 10 or cty > 32.5. Use the relocate function to move the column cty after the column year and move the column hwy before the column cyl.

```
mpg_filtered <- mpg |>  
  filter(cty < 10 | cty > 32.5) |>  
  relocate(cty, .after = year) |>  
  relocate(hwy, .before = cyl)  
mpg_filtered
```