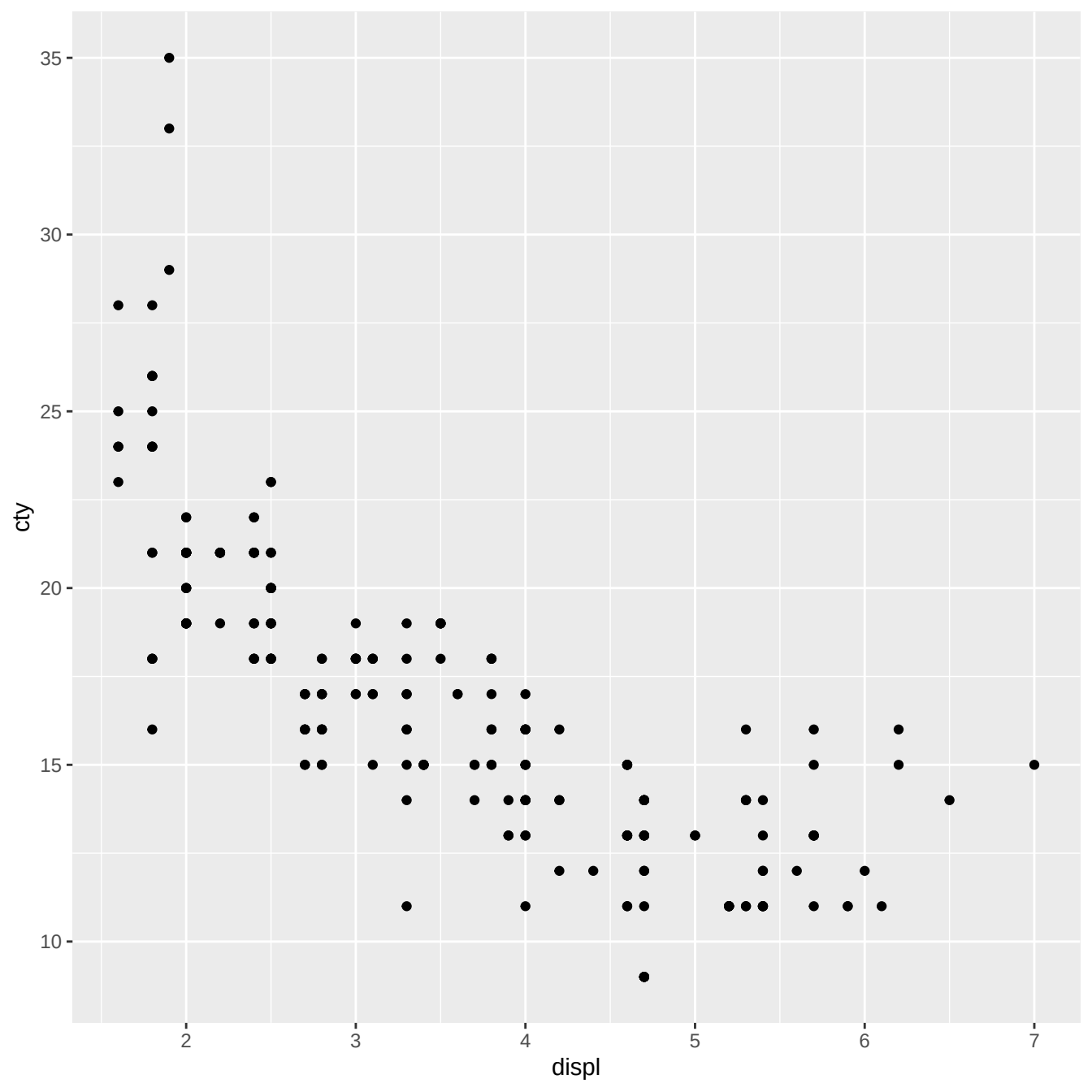
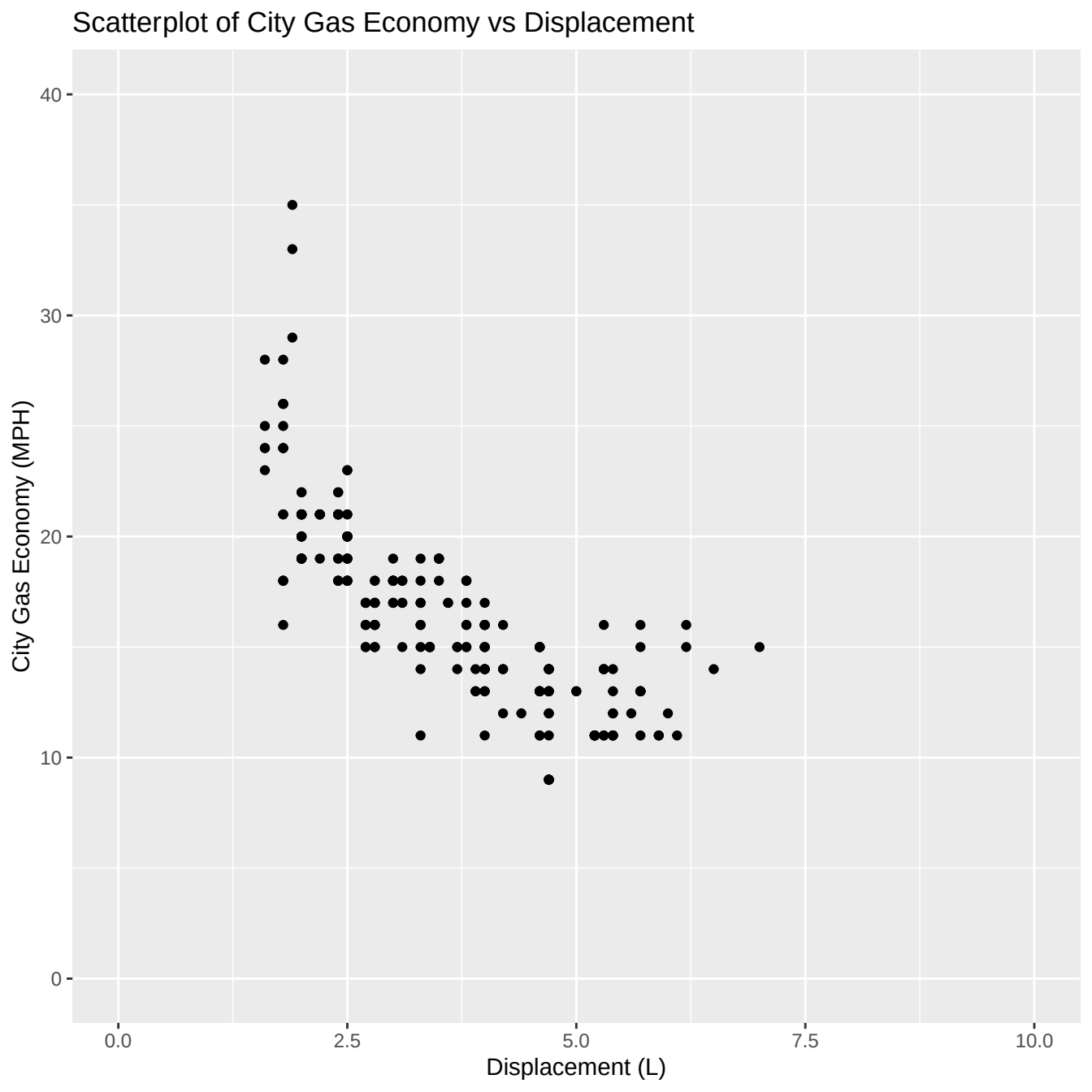
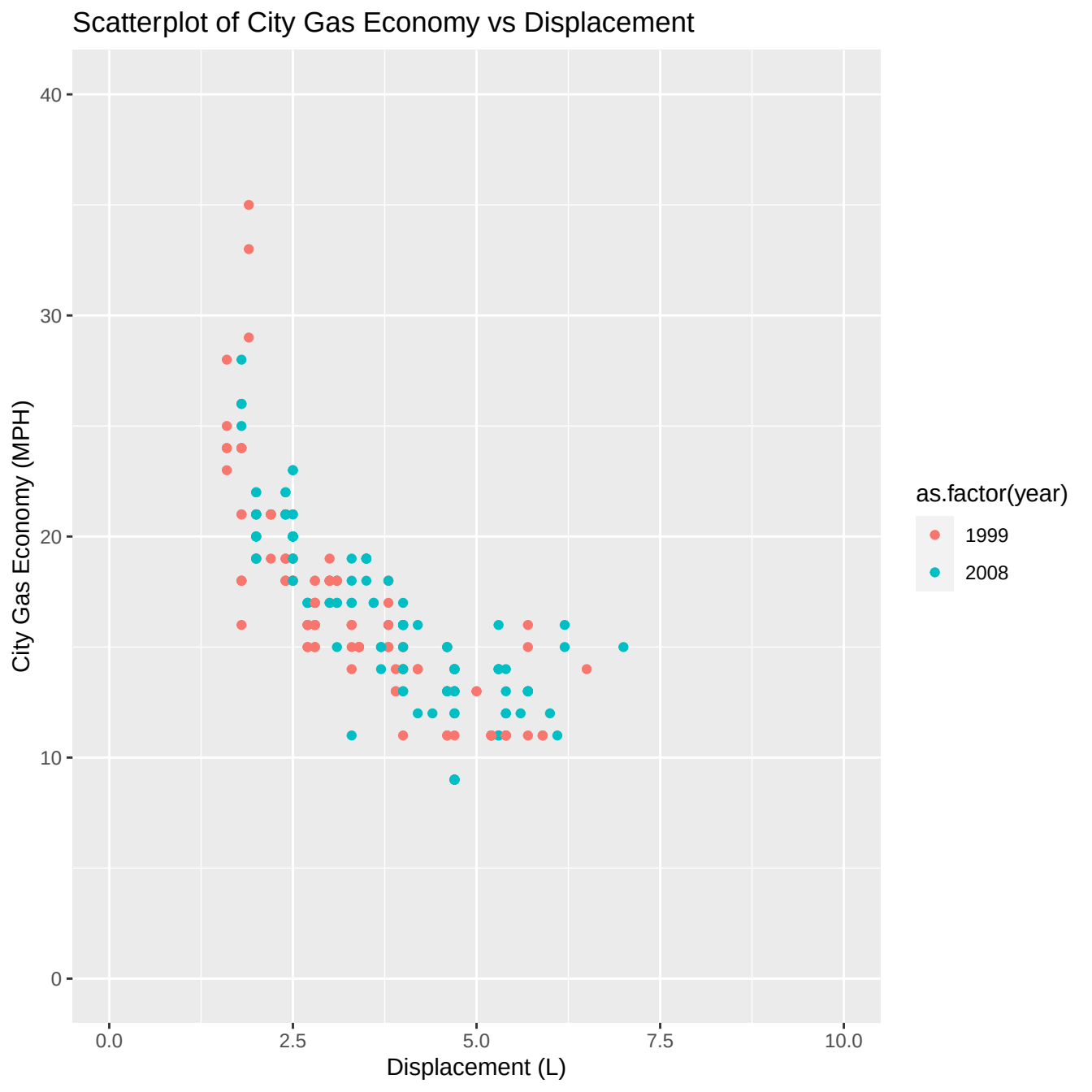
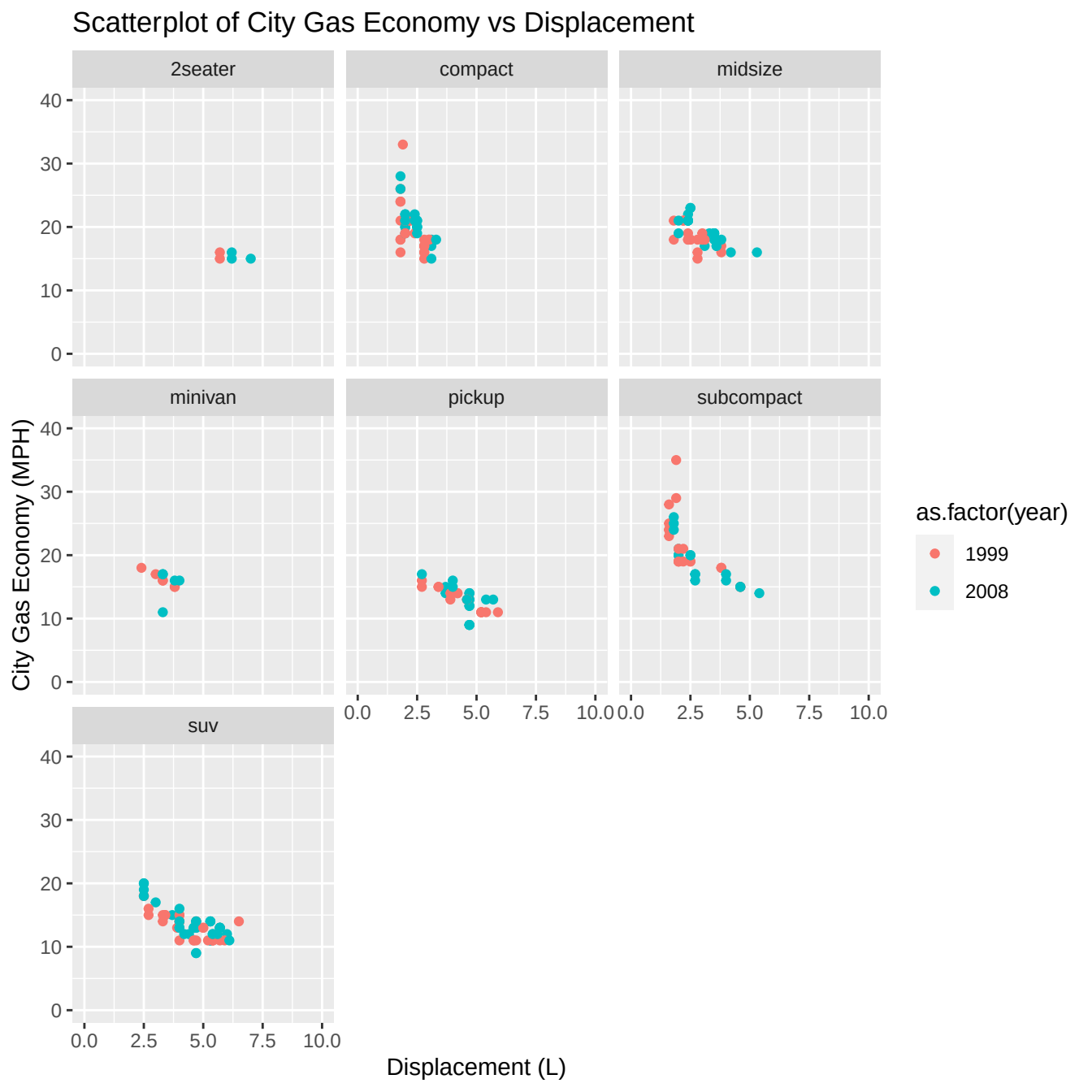
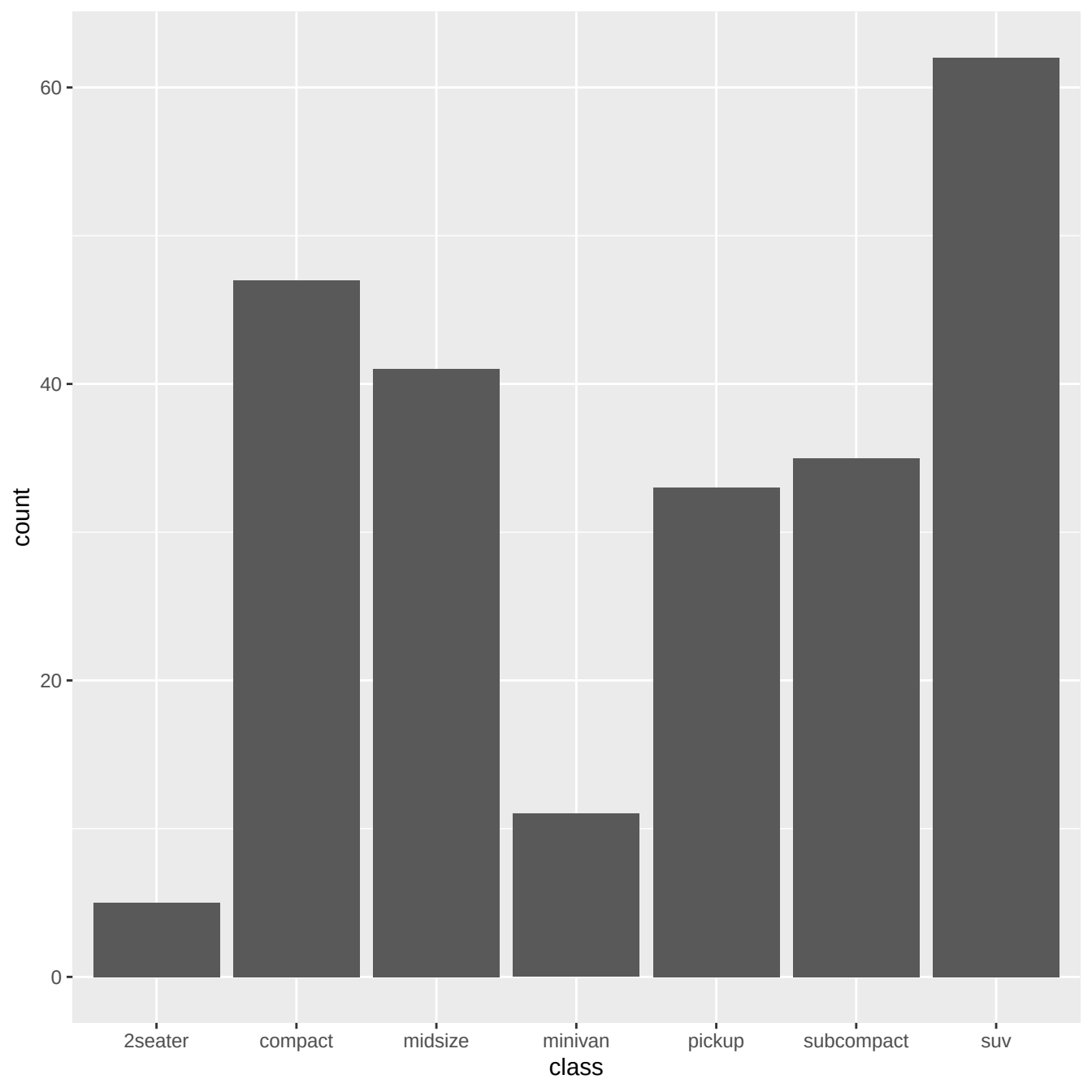
```r
library(ggplot2)

data("mpg")

ggplot(mpg, aes(x=displ, y=cty)) + geom_point()

p <- ggplot(mpg, aes(x=displ, y=cty)) + geom_point() +
  xlim(0, 10) + ylim(0, 40)
p+ggtitle('Scatterplot of City Gas Economy vs Displacement') +xlab('Displacement (L)') +
ylab('City Gas Economy (MPH)')

p <- ggplot(mpg, aes(x=displ, y=cty, color=as.factor(year))) + geom_point() +
  xlim(0, 10) + ylim(0, 40)
p+ggtitle('Scatterplot of City Gas Economy vs Displacement') +xlab('Displacement (L)') +
ylab('City Gas Economy (MPH)')


p <- ggplot(mpg, aes(x=displ, y=cty, color=as.factor(year))) + geom_point() +
  xlim(0, 10) + ylim(0, 40) +
  facet_wrap(~class)
p+ggtitle('Scatterplot of City Gas Economy vs Displacement') +xlab('Displacement (L)') +
ylab('City Gas Economy (MPH)')


ggplot(mpg, aes(x=class)) + geom_bar()

ggsave("homework#2.pdf")

print(plot)
```


35
30
25
20
15
10
cty
2
3
4
5
6
7
displ


Scatterplot of City Gas Economy vs Displacement
City Gas Economy (MPH)
40
30
20
10
0
0.0
2.5
5.0
7.5
10.0
Displacement (L)


Scatterplot of City Gas Economy vs Displacement
City Gas Economy (MPH)
40
30
20
10
0
0.0
2.5
5.0
7.5
10.0
Displacement (L)
as.factor(year)
1999
2008


Scatterplot of City Gas Economy vs Displacement
2seater
compact
midsize
minivan
pickup
subcompact
suv
City Gas Economy (MPH)
Displacement (L)
as.factor(year)
1999
2008


60
40
20
0
count
2seater
compact
midsize
minivan
pickup
subcompact
suv
class