

# Exercise set 3

1. Turn a stacked bar chart into a pie chart using `coord_polar()`.
2. What's the difference between `coord_quickmap()` and `coord_map()`?
3. What does the plot below tell you about the relationship between city and highway mpg? Why is `coord_fixed()` important? What does `geom_abline()` do?

```
ggplot(data = mpg, mapping = aes(x = cty, y = hwy)) +  
  geom_point() +  
  geom_abline() +  
  coord_fixed()
```

# ggplot() returns a plot object that can be modified later

```
p1 <- ggplot(mtcars2) +  
  geom_point(aes(x = wt, y = mpg, colour = gear)) +  
  labs(title = "Fuel economy declines as weight increases",  
        subtitle = "(1973-74)",  
        caption = "Data from the 1974 Motor Trend US magazine.",  
        tag = "Figure 1",  
        x = "Weight (1000 lbs)",  
        y = "Fuel economy (mpg)",  
        colour = "Gears")
```

p1

Figure 1

