Exercise 1 - create a tibble that has both deaths and total cases per state, arranged by the total number of deaths in descending order

```r
state.1 <- dat %>% group_by(state, date) %>% summarize(total_deaths = sum(deaths), total_cases = sum(ca
```

```
## `summarise()` regrouping output by 'state' (override with '.groups' argument)
```

```r
state.1
```

```
## # A tibble: 13,104 x 4
## # Groups:   state [55]
##    state   date       total_deaths total_cases
##    <chr>   <date>            <dbl>       <dbl>
##  1 Alabama 2020-03-13            0           6
##  2 Alabama 2020-03-14            0          12
##  3 Alabama 2020-03-15            0          23
##  4 Alabama 2020-03-16            0          29
##  5 Alabama 2020-03-17            0          39
##  6 Alabama 2020-03-18            0          51
##  7 Alabama 2020-03-19            0          78
##  8 Alabama 2020-03-20            0         106
##  9 Alabama 2020-03-21            0         131
## 10 Alabama 2020-03-22            0         157
## # ... with 13,094 more rows
```

```r
deaths <- state.1 %>% group_by(state) %>% filter(total_deaths == max(total_deaths), total_cases == max(
```

```r
deaths
```

```
## # A tibble: 57 x 4
## # Groups:   state [54]
##    state         date       total_deaths total_cases
##    <chr>         <date>            <dbl>       <dbl>
##  1 New York      2020-10-26        33073      501393
##  2 Texas         2020-10-26        18077      916562
##  3 California    2020-10-26        17398      913699
##  4 Florida       2020-10-26        16448      782005
##  5 New Jersey    2020-10-26        16292      231473
##  6 Massachusetts 2020-10-26         9881      151777
##  7 Illinois      2020-10-26         9811      385084
##  8 Pennsylvania  2020-10-26         8737      201248
##  9 Georgia       2020-10-26         7644      364275
## 10 Michigan      2020-10-26         7551      179624
## # ... with 47 more rows
```
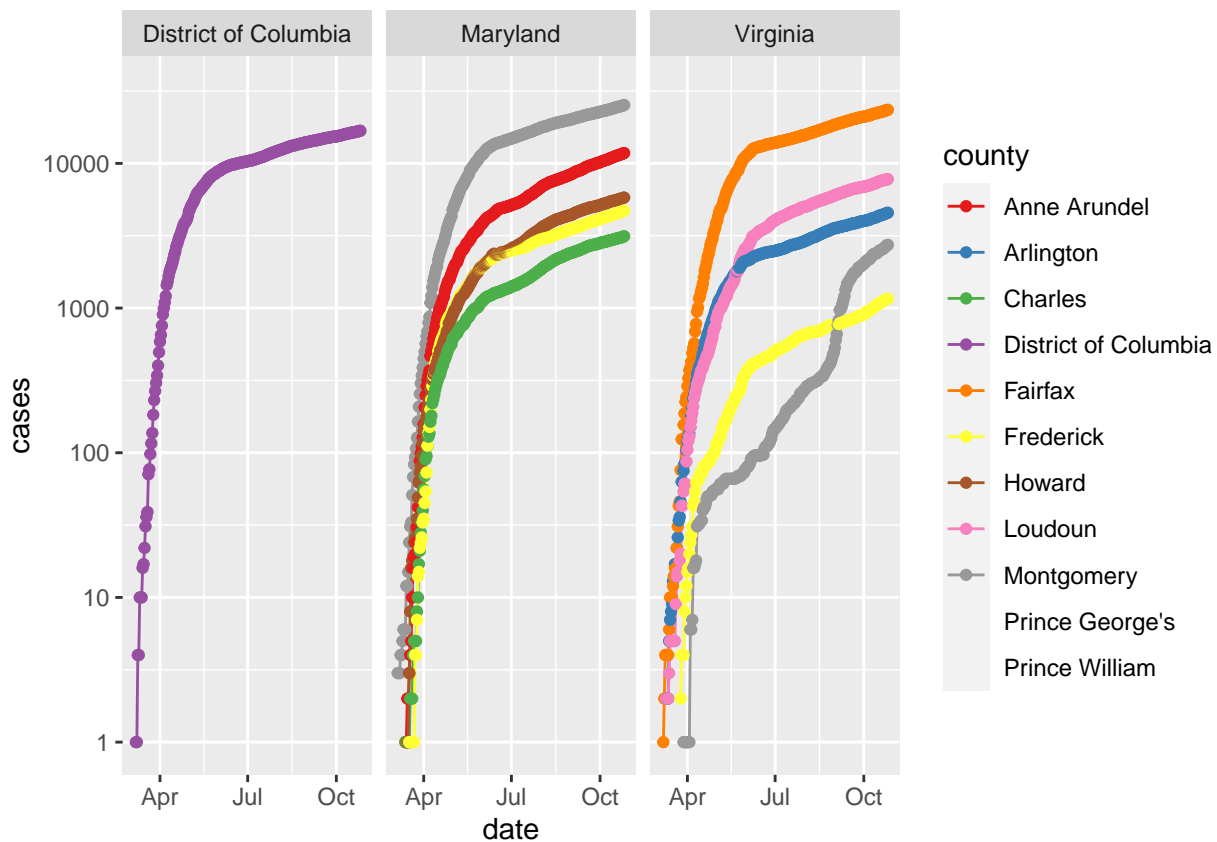
Exercise 2 -

```
dat_dmv <- dat %>% filter(state == "District of Columbia" | state == "Virginia" | state == "Maryland",

dat_dmv %>%
    ggplot(aes(x = date, y = cases, group = county, col = county)) +
    geom_line() +
    geom_point() +
    facet_wrap(~ state) +
    scale_y_log10() +
    scale_color_brewer(palette = "Set1")
```
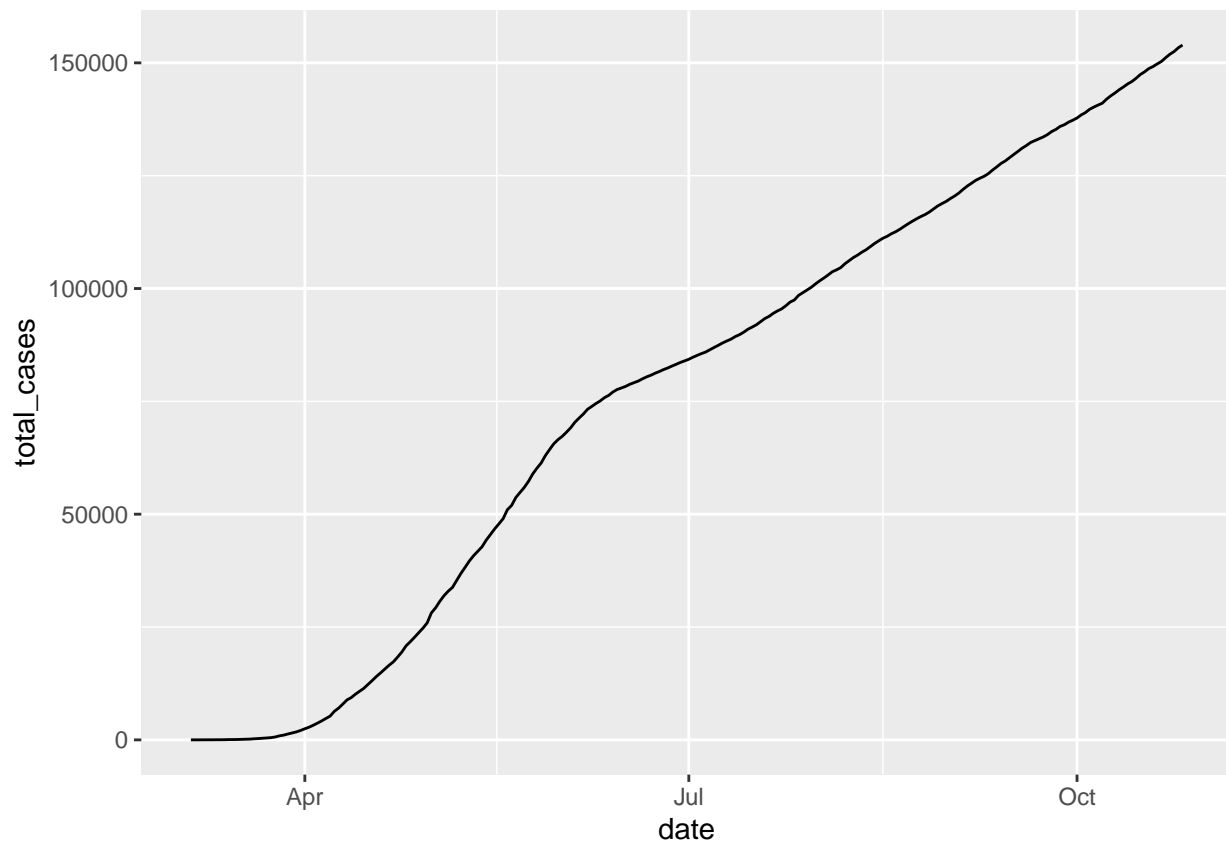

Exercise 3 -

```
dmv_total_cases <- dat_dmv %>% group_by(date) %>% summarize(total_cases = sum(cases))
```

```
## `summarise()` ungrouping output (override with `.groups` argument)
```

```
dmv_total_cases %>% ggplot(aes(x = date, y = total_cases)) + geom_line()
```

```r
dmv_total_deaths <- dat_dmv %>% group_by(date) %>% summarise(total_deaths = sum(deaths))
```

```
## `summarise()` ungrouping output (override with `.groups` argument)
```

```r
dmv_total_deaths %>% ggplot(aes(x = date, y = total_deaths)) + geom_line()
```