

# Question 15

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## Set-up

### Loading packages

```
library(ggplot2)
library(lubridate)
```

```
## Warning: package 'lubridate' was built under R version 4.1.2
```

```
##
```

```
## Attaching package: 'lubridate'
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      date, intersect, setdiff, union
```

```
library(dplyr)
```

```
##
```

```
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
```

```
##
```

```
##      filter, lag
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      intersect, setdiff, setequal, union
```

### Reading in the data

```
covid <- read.csv("covid19_variants.csv")
```

## Prepping the data to be graphed

### Changing to date format

```
covid$date <- ymd(covid$date)
```

## Filtering out 'Other' and 'Total' data

```
covid.trim <- covid %>%
  filter(variant_name != "Other" , variant_name != "Total")
```

## Graphing

```
covid.trim %>%
  ggplot(aes(x = date, y = percentage, color = variant_name))+
  geom_line()+
  theme_bw()+
  labs(
    title = "Covid-19 Variants in California", x = NULL, y = "Percentage of sequenced specimens",
    caption = "Data Source: <https://www.cdph.ca.gov/>" )+
  scale_x_date(
    date_breaks = "1 month", date_labels = "%b %Y") +
  theme(
    axis.text.x = element_text(angle = 60, hjust = 1),
    legend.title = element_blank(), plot.caption = element_text(size = 8))
```

