

Homework 1

Ethan Chang - ehc586

This homework is due on Jan. 17, 2023 at 11:00pm. Please submit as a pdf file on Canvas.

Problem 1: (4 pts) Demonstrate basic command of Markdown by creating a bulleted list with three items, a numbered list with three items, and a sentence that has one word in bold and one word in *italics*.

- a
 - bulleted
 - list
1. a
 2. numbered
 3. list

This is a sentence that has one word in **bold** and one word in *italics*.

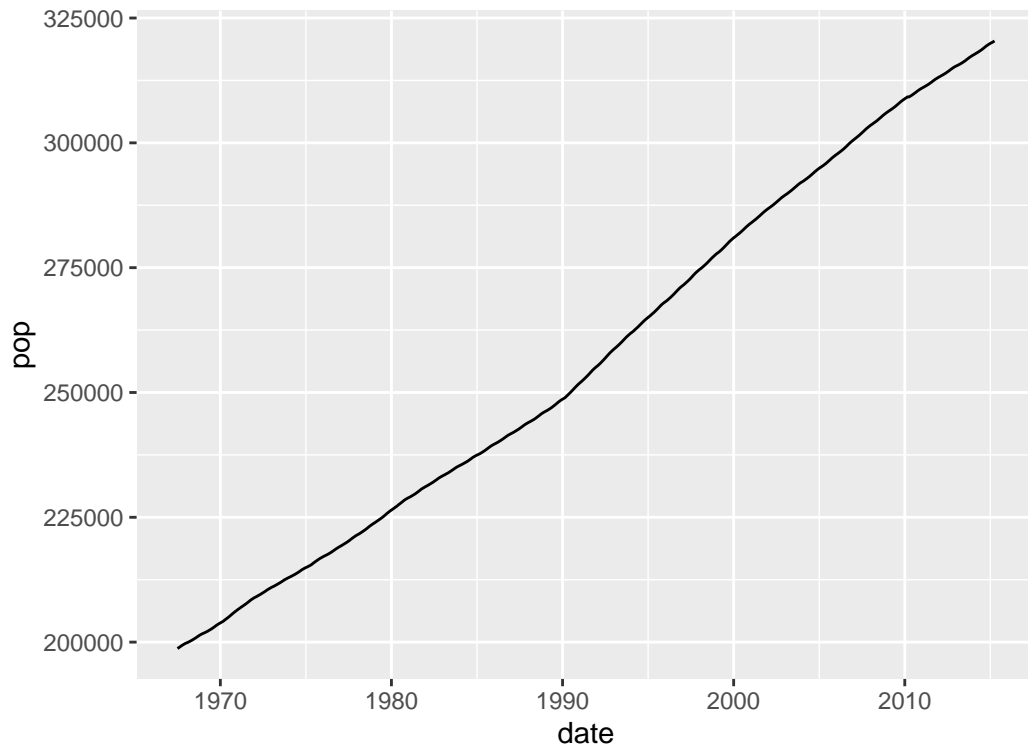
Problem 2: (3 pts) The `economics` dataset contains various time series data from the US economy:

`economics`

```
## # A tibble: 574 x 6
##   date       pce    pop psavert uempmed unemploy
##   <date>     <dbl> <dbl>   <dbl>   <dbl>   <dbl>
## 1 1967-07-01  507. 198712    12.6     4.5    2944
## 2 1967-08-01  510. 198911    12.6     4.7    2945
## 3 1967-09-01  516. 199113    11.9     4.6    2958
## 4 1967-10-01  512. 199311    12.9     4.9    3143
## 5 1967-11-01  517. 199498    12.8     4.7    3066
## 6 1967-12-01  525. 199657    11.8     4.8    3018
## 7 1968-01-01  531. 199808    11.7     5.1    2878
## 8 1968-02-01  534. 199920    12.3     4.5    3001
## 9 1968-03-01  544. 200056    11.7     4.1    2877
## 10 1968-04-01  544. 200208    12.3     4.6    2709
## # ... with 564 more rows
```

Use `ggplot` to make a line plot of the total population (`pop`, in thousands) versus time (column `date`).

```
ggplot(economics, aes(date, pop)) + geom_line()
```



Problem 3: (3 pts) Again using the `economics` dataset, now make a scatter plot (using `geom_point()`) of the number of unemployed versus the total population (`pop`), and color points by date.

```
ggplot(economics, aes(pop, unemploy, color = date)) + geom_point()
```

