

Homework 1

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This homework is due on Jan. 25, 2021 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.

- Item 1
- Item 2
- Item 3

1. Item 1
2. Item 2
3. Item 3

Here is the *sentence*!

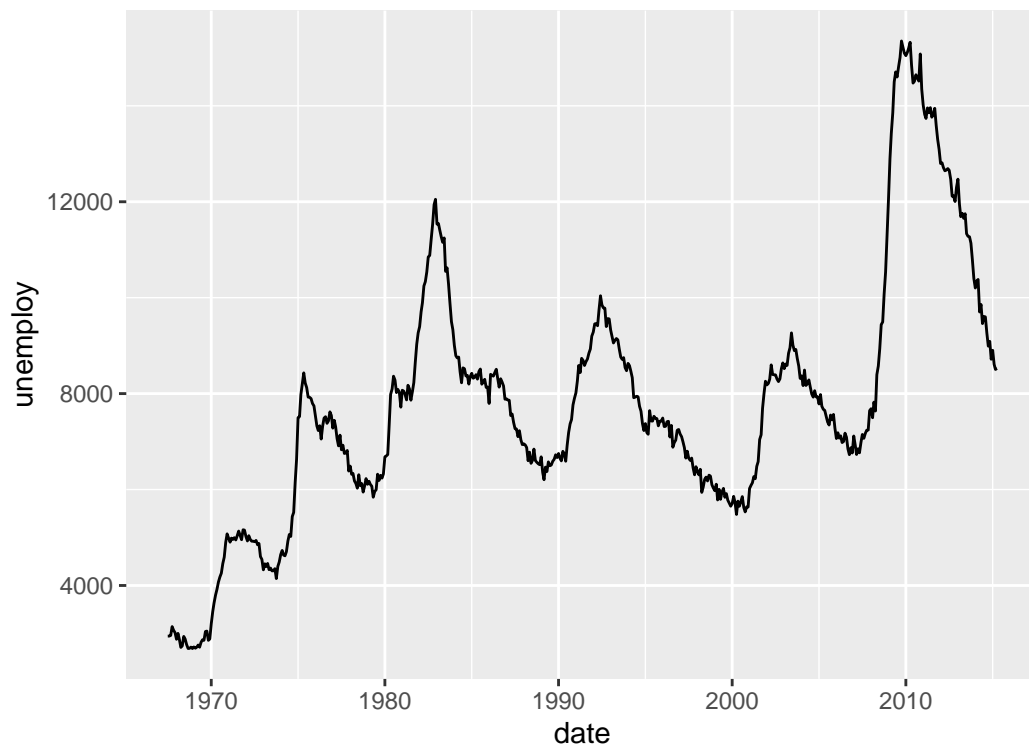
Problem 2: (3 pts) The `economics` dataset contains various time series data from the US economy:

```
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 number of unemployed (column `unemploy`) versus time (column `date`).

```
ggplot(economics, aes(x = date, y = unemploy)) + 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 personal savings rate (`psavert`), and color points by date.

```
ggplot(economics, aes(x = psavert, y = unemploy, color = date)) + geom_point()
```

