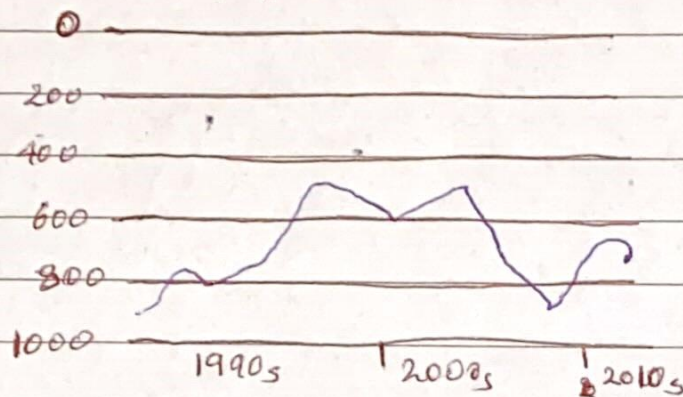


Week 2: Quiz

①

1. Consider the graph below which shows gun death in Florida, USA over a number of years, what is misleading about this graph?



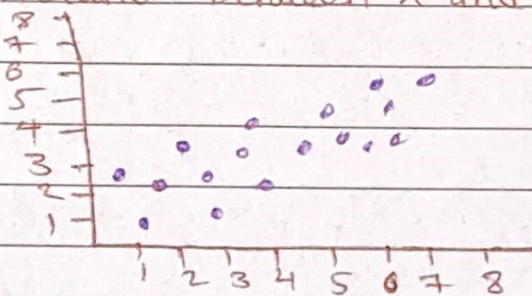
I. The y-axis

2. Each geom function in ggplot2 takes a argument. This defines how variables in your dataset are mapped to visual properties.

I. mapping

3. The first argument of ggplot() is the to use in the graph.
IV. dataset

4. What type of correlation between x and y does the graph below have?

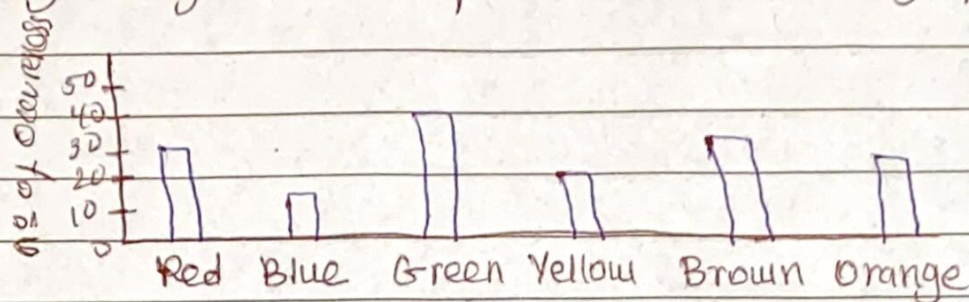


II. Positive

5. What is ggplot2 an implementation of?

I. The Grammar of Graphics developed by Leland Wilkinson.

6. This bar graph is an example of a data visualization technique. How many categories are represented in this bar graph?



11. 6 categories.

7. What is a geom in the ggplot2 system?
III. a plotting object like point, line, or other shape.

8. ggplot2movies is a dataset about movies.
When I run the following code, I get an error:

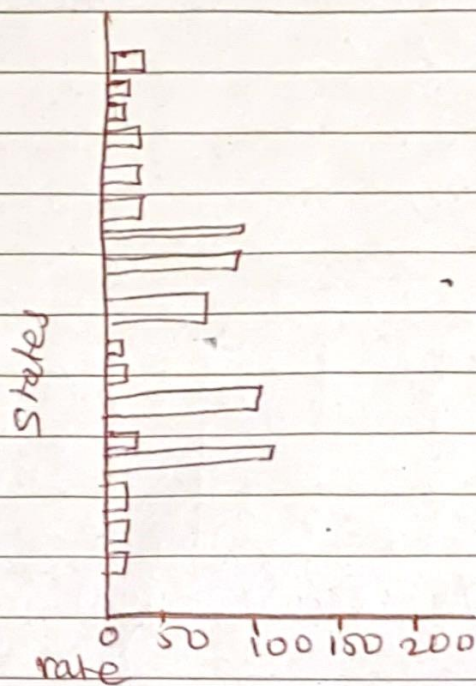
```
library(ggplot2)
library(ggplot2movies)
g <- ggplot(movies, aes(Votes, rating))
print(g)
```

I was expecting a scatterplot of 'Votes' and 'rating' to appear.
What is the problem?

a. ggplot does not yet know what type of layer to add to the plot.

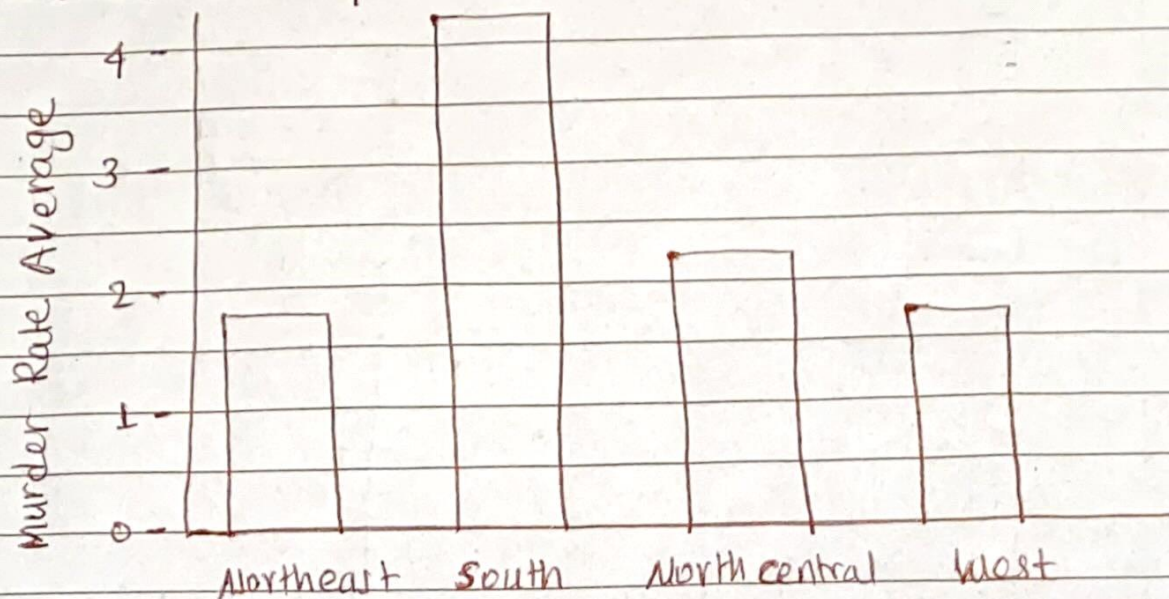
9. Have a look at the following two plots.

They show the same information: rates of measles by state in the United States for 1928.



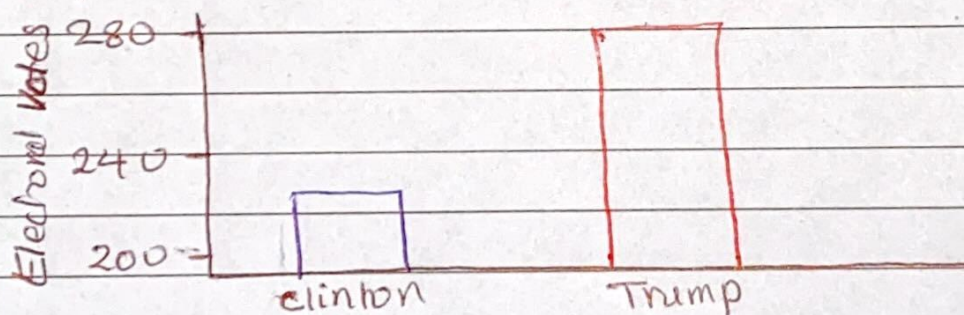
iv. The plot on the right is better because it orders the states by disease rate so we can quickly see the states with highest and lowest rates.

10. Say we are interested in comparing gun homicide rates across regions of the U.S. We see this plot: and decide to move to a state in the western region. What is the main problem with this interpretation?



11. It does not show all the data.
We do not see the variability within a region and it's possible that the safest states are not in the west.

11. What is the problem with this plot which shows the results of presidential election 2016 (Clinton vs Trump)?



1. The axis does not start at 0.

Judging by the length, it appears Trump received 3 times as many votes when in fact it was about 30% more.