

COVID-19 Flattening the curve

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COVID 19 MATH ASSIGNMENT 1 - "Flatten the Curve Lesson"

We all know that the Corona virus has affected many people throughout this pandemic, it has caused people to lose their jobs, it has caused deaths, health problems and so much more. There is a lot of math behind the Covid-19 virus; the virus has spread in an exponential growth (quicker growth).

What is an exponential function? An exponential function is when a function's value is very consistent and rises. Exponential graphs and linear graphs are both very different, linear graphs have a straight line while exponential graphs like I said before are very consistent. You're probably wondering what is "Flattening the curve" and what does it have to do with the Covid-19. Well "flattening the curve" was specifically made for the Coronavirus pandemic to try to slow it down, it's very similar to the exponential graph. The "flattening the curve" has reached its "max" and has passed its hospital limits to which it has turned into a pandemic but if people do social distancing then the spreading will slow down. I believe social distancing has really slowed down the virus and has been successful. I know because apparently with social distancing there would be 50% less exposure and less deaths. I can infer that places where they will open up will end up having more Covid-19 cases later on. In my opinion I think that we should keep social distancing for more time instead of reopening places. I believe it's more important to stay safe.

In conclusion the Corona Virus has affected many people, and social distancing has really helped make the spreading of this virus decrease.

Covid 19 Math Assignment 2

1) Look at the USA map, notice the key below and the distinctions of the different colors. (the lighter yellowish color vs. the darker burnt orange color)

*Pick 5 different states, state their color and explain the MATH that was used to make that state that particular color.

✧ [Florida] - Color (**Dark burnt color orange**)

Florida has 48,650 cases

Darker colors have the most cases (48,675- 353,623)

✧ [Colorado] - color (**dark orange**)

Colorado has 23,121 cases

This dark orange has the second most cases from (19,117-44,424)

✧ [Arizona] - color (**Orange**)

Arizona has 15,315

Orange is in between for the amount of cases a little bit more than least amount of cases (11,340- 19,073)

✧ [New Mexico] - color (**in between on the lighter orange side**)

New Mexico has 6,472 cases

Has less of the amount of cases as orange (5,485-9,379)

✧ [Alaska] - color (**lightest orange**)

Alaska has no cases

No cases (0)

The darker the color the most cases it has, the lighter the color the least cases it has

Let's compare New York state to Wyoming. The data reports cases per 100K - this means the number of cases per 100,000 people living in the state.

NYS cases per 100K = 3.53623 Wyoming cases per 100K = .00801

Question #3

Now that you have taken a closer look at the breakdown of the Covid19 cases across the USA, can you use your math knowledge of Proportional Relationships and data to make some general conclusions about the seriousness of this spread of the disease? Many decisions have been made by our political leaders based on DATA. **What conclusions** can you make regarding the shutdown of most of our daily places..... stores, churches, schools, businesses....etc.

Be specific with your evidence to support your conclusions. Does it matter which state you live in in regards to all this? (This answer should be a short essay- more than 1 sentence!)

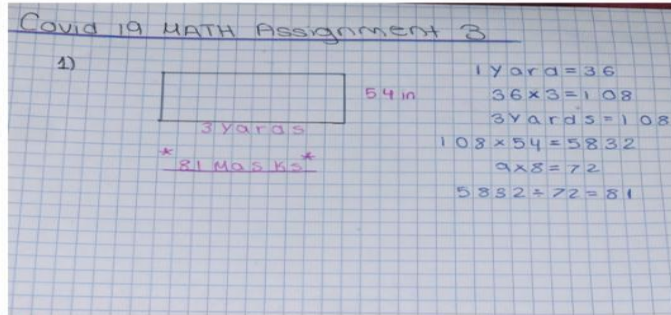
The spread of the disease the corona virus is very serious. The social distancing has really helped make the cases decrease but since some places are reopening the numbers will soon increase. This is how contagious the disease is, if people start to reopen then the number of cases will increase drastically which is what I can tell from my data. I believe places should stay closed for a little bit more time. I know people need to work in order to put food on the plate but this could lead to many more deaths. I've seen on the news and the media people aren't exactly being smart and careful about this whole situation. An example of this is when people were rallying up at the Wisconsin state capitol which led 72 people to test positive, now imagine if places started to reopen and how packed places would be. I don't think it really matters what state you live in because no matter what this virus is very contagious and spreads very fast what matters is how you handle this whole situation.

Covid19 Math Assignment 3

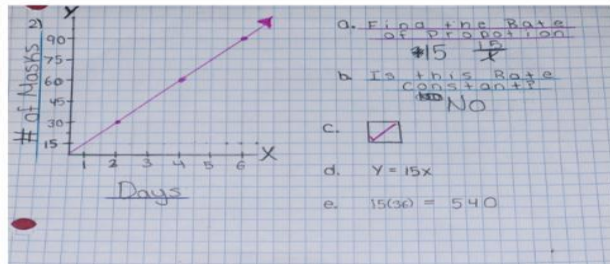
1. Your family and friends need face masks in order to go outside. You happen to have a piece of fabric that measures 54 inches wide and 3 yards long. The directions to sew these masks require you to cut out rectangular shapes measuring 9 inches by 8 inches. (9x8 inches)

You want to make as many as you can from this large piece of fabric. How many 9x8 in. rectangles can be cut from this piece of fabric? Remember you need to convert yards to inches.

Hint: 1 yard = 36 inches. And there will be some scraps left over but try to get as many masks as you can from the full piece!



2) Your face mask production has been quite successful. Below is a table reflecting this production.



Covid19 Math Assignment 4 - FINAL ASSESSMENT

1) Look at the first graph – red bar graph – “NY Coronavirus tests and positives” - you can click on the different views along the top of the graph

Take a look at the bars and counts for “New Positives”. What conclusions can you make from the way the bars are drawn? Explain giving specifics about the data distribution and the design of the graph.

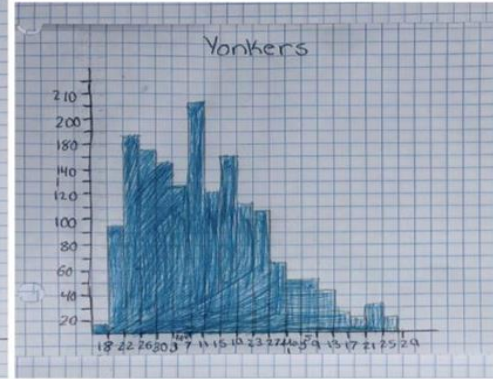
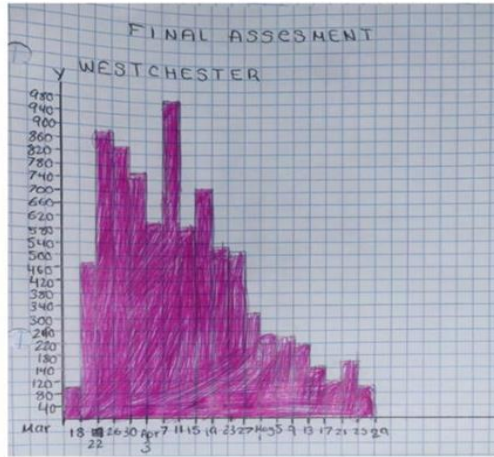
For the bar the “new positives” it shows how the cases for the people who tested positive have decreased drastically by the end of April. I can conclude that the social distancing has really helped make the numbers decrease. I conclude this because as you can see from the graph, the cases tested positive decreased April 24 from 10,553 positive cases to 1,249 positive cases May 24.

Scroll down to blue bar graph – “NY Coronavirus Hospitalizations” click on the drop down – go to “Newly Hospitalized” compare the weeks at the end of March to the weeks at the beginning of May. What do you notice?

The end of March it shows that there are less cases but that later on it increases drastically while at the beginning of May the cases start to decrease.

Update: The chart (June 5) there are very few coronavirus cases

FINAL ASSESSMENT ----- Make 2 Graphs



After studying and going over our local data I can conclude that closing places and social distancing has really helped decreasing the coronavirus-cases.

How has social distancing and closing places helped the cases decrease? Well in the chart you can see how coronavirus cases started to increase and then slowly started to decrease. Around the time the cases started to decrease is the time when social distancing really started to take an effect which was around May. This has made an impact in flattening the curve because it shows that it was a success considering the cases decreased. I'm pretty sure we all know what flattening the curve is but lets go over it, flattening the curves is a public health strategy to slow the spread of the coronavirus cases and try not to pass the health care capacity.

In conclusion Overall social distancing has really had an effect but soon the Corona virus will hit us harder in Phase 2. Studying and going over what has been going on has really helped me inform myself and inform my family about the virus.