



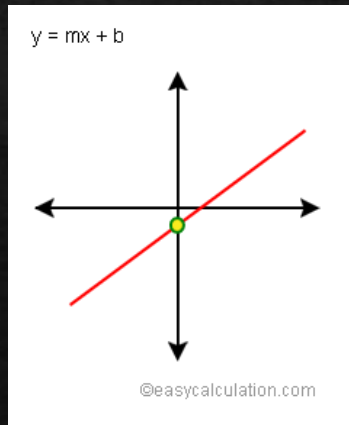
COVID-19

Karen Guerrero

Functions

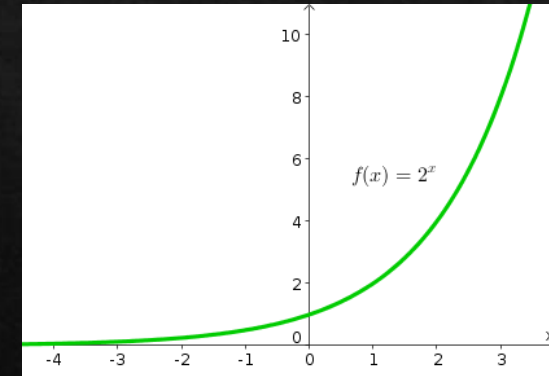
Linear

- ◇ Linear is a straight line
- ◇ Changes by a constant



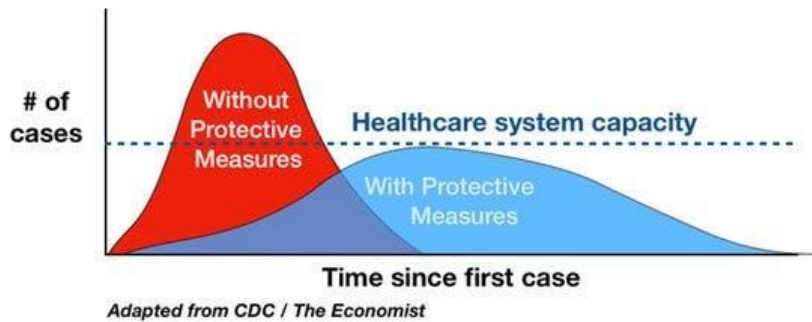
Exponential

- ◇ Exponential is a curvy line
- ◇ The rate of change increases over time. It starts off slow and then begins to go faster



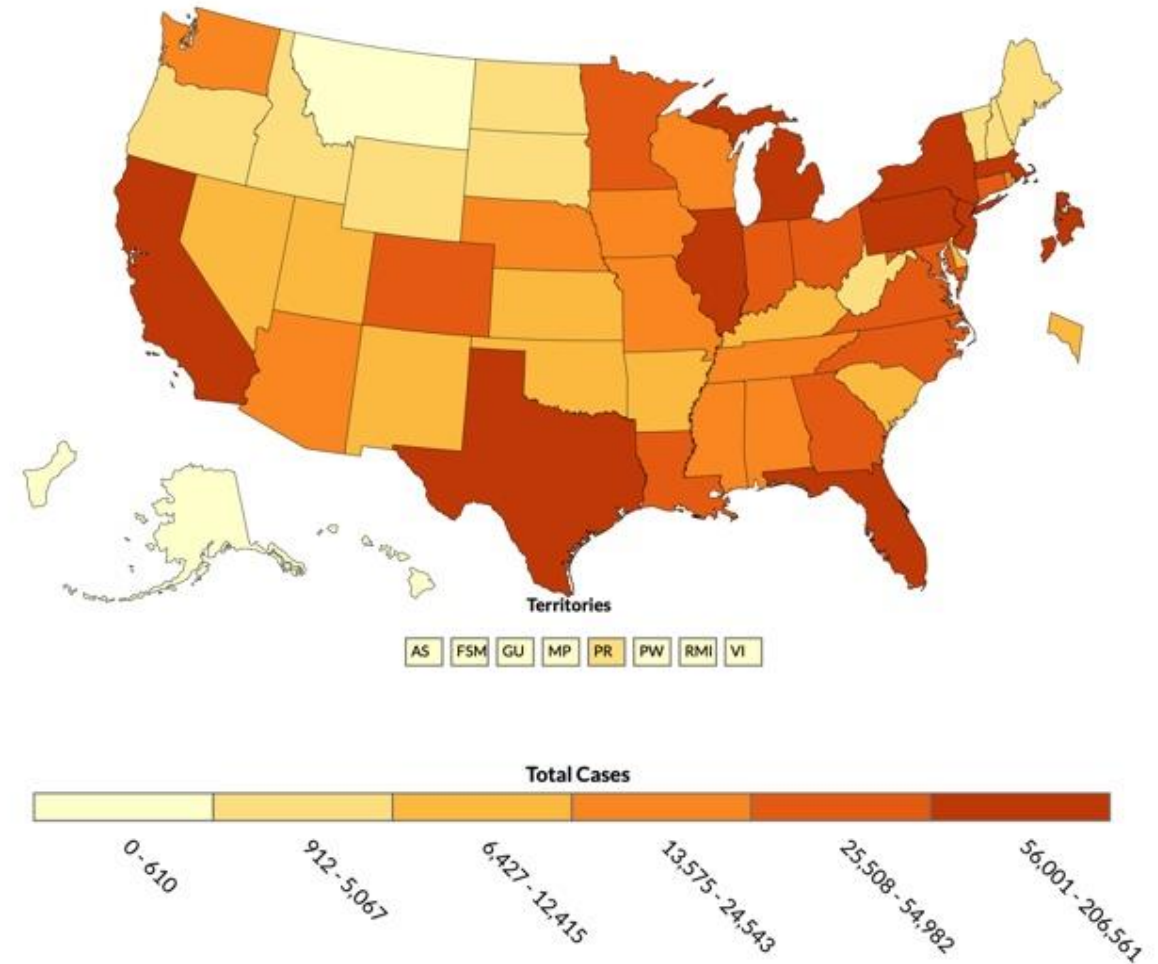
Flatten the Curve

- ◇ “Flatten the curve” is a term we use that means to help stop the spread.
- ◇ If it were to past the healthcare system capacity line, we wouldn’t know what to do. There would be too many cases that we would not be able to control or provide healthcare for.
- ◇ If we stay inside and keep social distance the cases would go down. Social distance prevents some people from getting the disease and slows down on how many people get sick.



Total Cases

The lighter yellowish part are the areas with the least amount of cases. As the shades get darker the cases are increasing. Once it gets to the end it's the most amount of cases.



Total Case Percentage

I believe they made each state a specific shade of orange based on the percent of cases. The higher the percentage means the more cases that states have of the country. For example, New York has 23%, this means that they have 23% of the total cases in the US. I divided the states cases by the total number of cases in the country. Then, I multiply my decimal answer by 100 and got my percentage. If the percentage is on the ten's digits, it's on level 6 which means the darker shade of orange. The lower percentage the lower the level and the shade is lighter.

State	Color	Math
Montana	Level 1	.03%
New Mexico	Level 3	.40%
Iowa	Level 4	1.04%
Virginia	Level 5	2.2%
New York	Level 6	23%

Comparing States

$$\begin{array}{l} \text{NYS cases per} \\ \text{100K} \\ = \underline{\quad 1822.6 \quad} \end{array}$$

$$\begin{array}{l} \text{Wyoming cases} \\ \text{per 100K} \\ = \underline{\quad 134.3 \quad} \end{array}$$

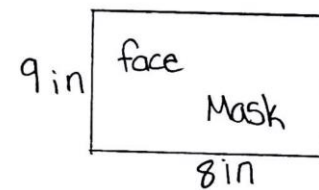
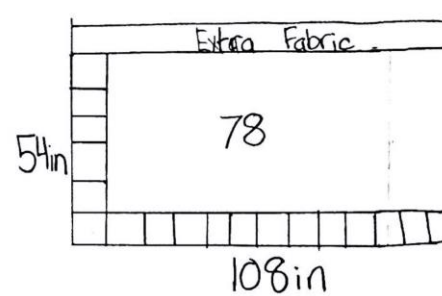
Comparing States

- ◇ It does matter where you live. It matters because if you live somewhere that is crowded with a high population there would be more cases.
- ◇ But if you live somewhere less crowded there would be less cases. In New York there is a lot of people, so we have a higher amount of cases than Wyoming.

Face Mask Production

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?



78in total

$$\begin{array}{r} 6 \\ 9 \overline{) 54} \\ \underline{-54} \\ 00 \end{array}$$

$$\begin{array}{r} 13.5 \\ 8 \overline{) 108.0} \\ \underline{-80} \\ 28 \\ \underline{-24} \\ 40 \\ \underline{-40} \\ 00 \end{array}$$

$$\begin{array}{r} 13 \\ \times 6 \\ \hline 78 \end{array}$$

Face Mask Production

Face Mask Production							
Days X	0	1	2	3	4	5	6
# of Mask Y	0	15	30	45	60	75	90

$$\begin{array}{l} y=15x \\ \underline{y=15(2)} \\ y=30 \end{array}$$

Table reflecting this production. X - row represents the number of days working and the Y - row represents the number of masks produced.

- The rate of production is 15 per 1 day.
- The rate is constant because it is increasing by the same number.

Face Mask Production

The equation that would accompany this production growth is $Y=15x$

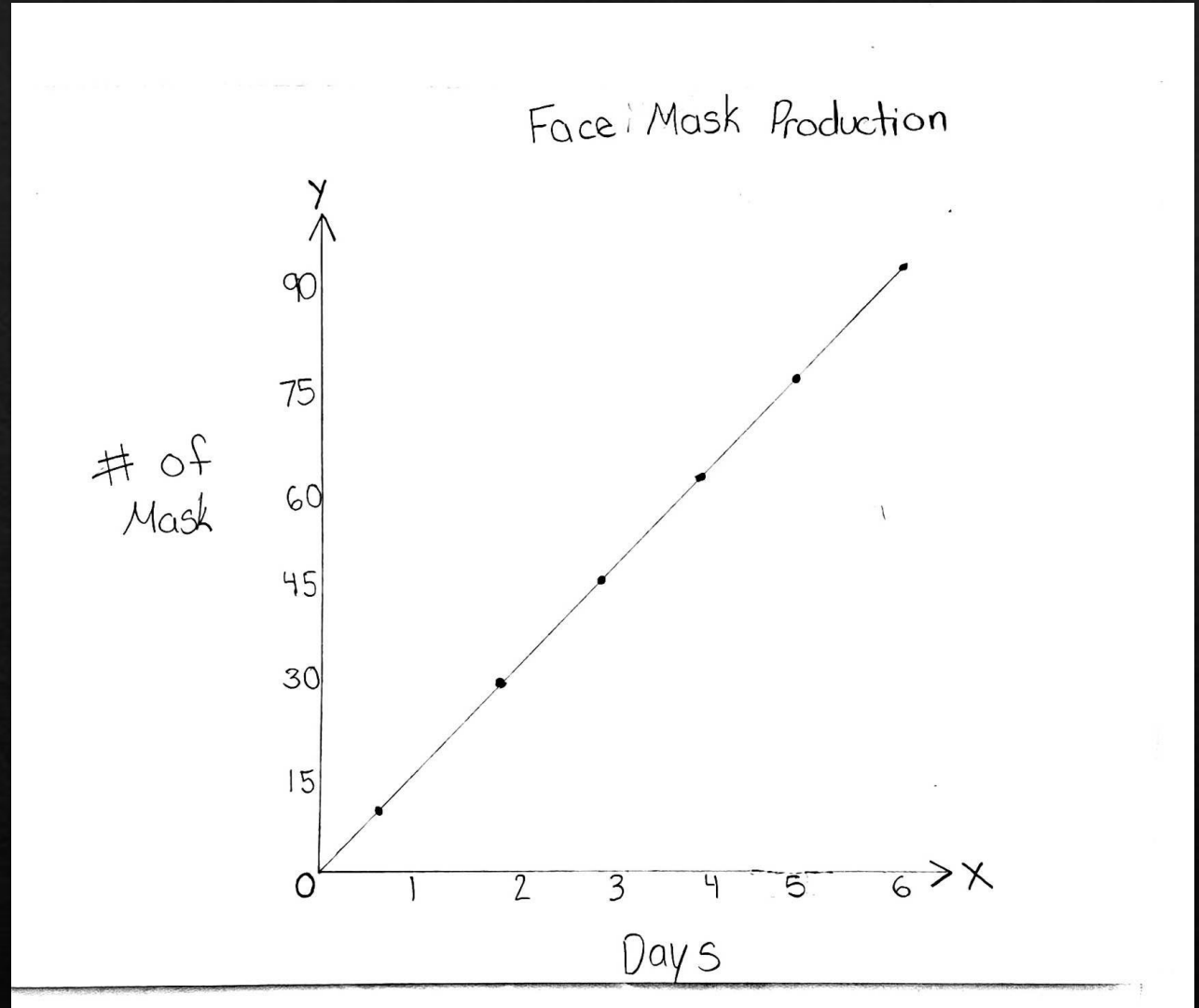
Since it is increasing by a constant it is a linear graph

Using this equation in 36 days 540 mask can be made.

$$Y=15(x)$$

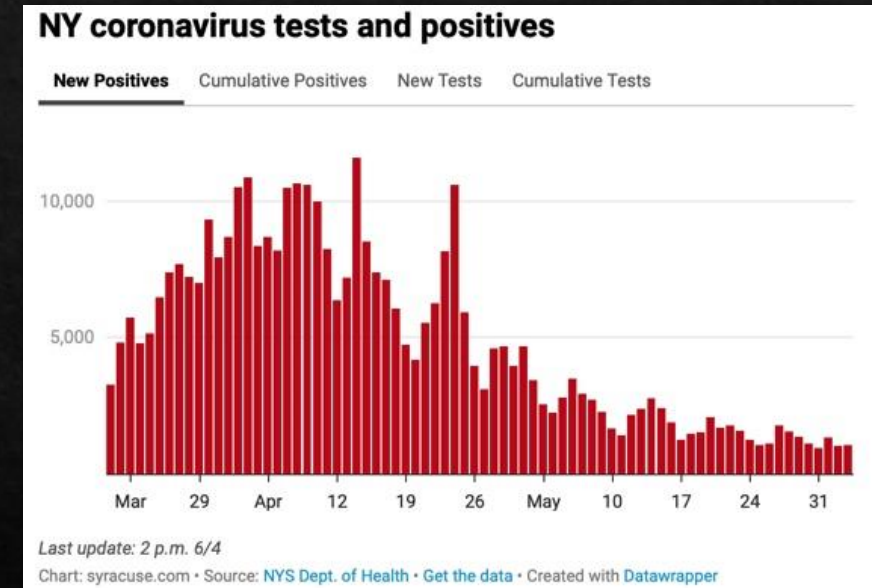
$$Y=15(36)$$

$$Y=540$$

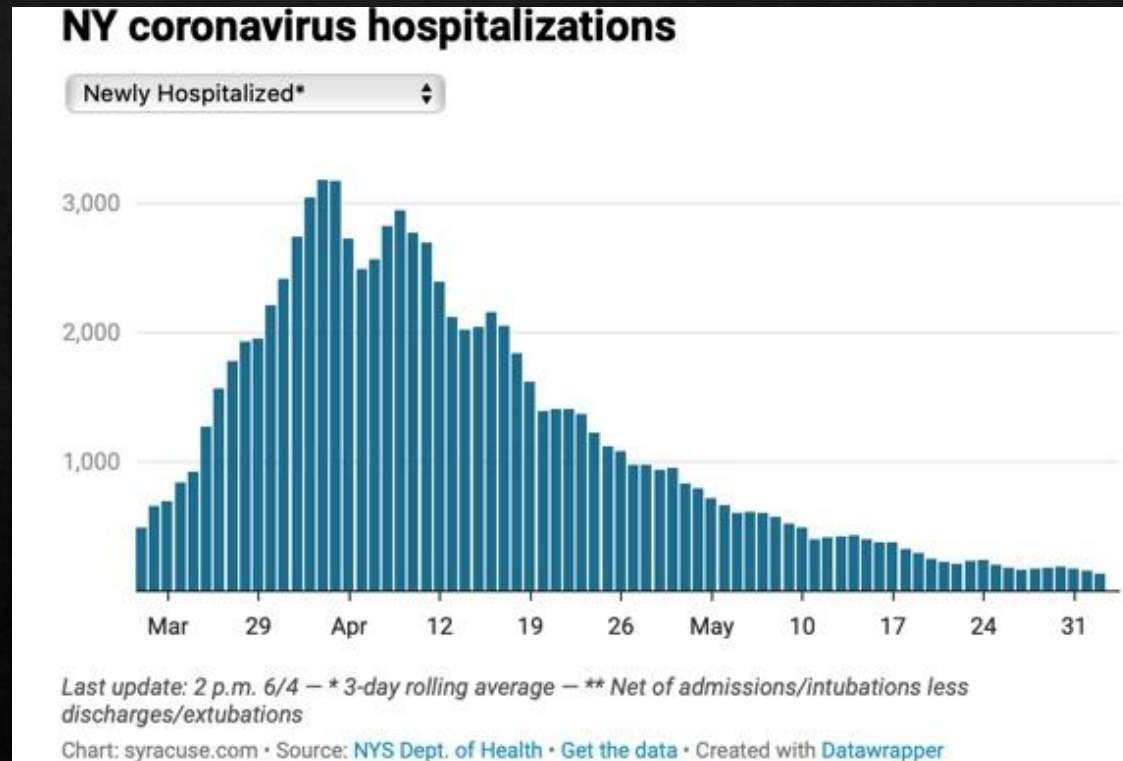


Positive Tests

The graph on the right represent the new positive cases in NY each day. According to the graph the amount of positive cases has decreased. On April 14, we reached the highest amount of cases in NY which was 11,571. May 31 is the lowest amount of cases NY showed which was 941. The entire month of March the amount of cases started increasing. On the month of May cases started decreasing.



Newly Hospitalized



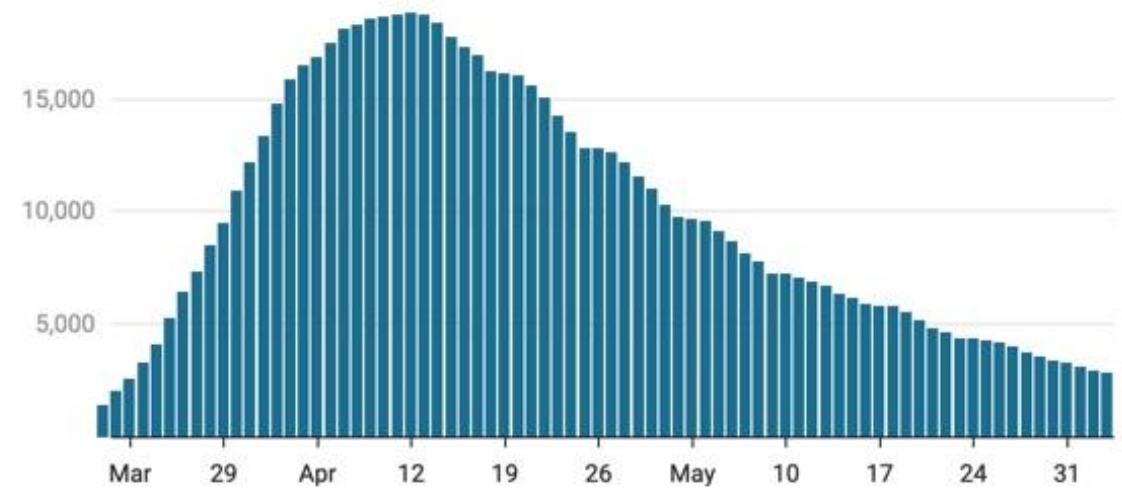
The graph on the left represents the amount of people that were admitted each day. The ending of March hospitalizations began to increase by thousands. On March 24, there were 924 newly hospitalizations and on the last day of March it ended with 2,411. The beginning of May hospitalizations decreased by hundreds. On May 1, there were 831 newly hospitalizations and on May 11 we had 401. Today is June 3, 2020 and we are at an all-time low of newly hospitalizations, 135.

Total Hospitalized

This graph shows the total amount of hospitalizations. The two graphs are very similar. They are similar because from mid-March to April 12th they both increase. Since the end of April both graphs started decreasing.

NY coronavirus hospitalizations

Total Hospitalized



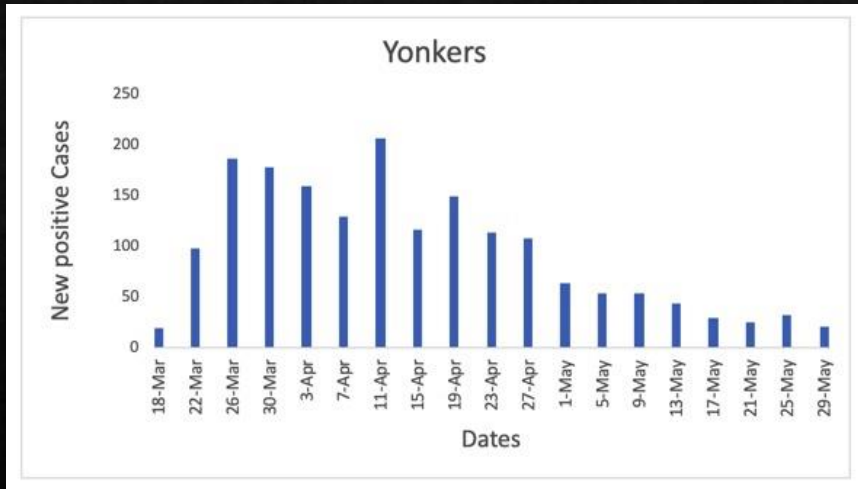
Last update: 2 p.m. 6/4 — * 3-day rolling average — ** Net of admissions/intubations less discharges/extubations

Chart: syracuse.com • Source: [NYS Dept. of Health](https://www.health.ny.gov) • [Get the data](#) • Created with [Datawrapper](https://datarwrapper.com)

Local

Yonkers

- ◇ April 11th reached the highest point at 206
- ◇ On March 18th we reached 19 new positive cases and on May 29th we were at 21 new cases this shows how we flatten the curve and are heading downward.



Westchester County

- ◇ April 11th reached highest point at 981
- ◇ On March 18th we reached 90 new positive cases and on May 29th we were at 100 new cases this shows how we flatten the curve and are heading downward.





I BELIEVE THAT CLOSING MANY PLACES AND STAYING AT HOME HAS A POSITIVE IMPACT ON FLATTENING THE CURVE



IT IS POSITIVE BECAUSE AT THE BEGINNING THE RATE OF NEW CASES WAS HIGH AND THAT IS NOT THE CASE ANYMORE.



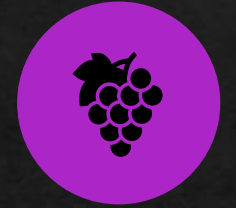
ONCE MORE PEOPLE REMAINED INDOORS THE LOWER THE RATE OF NEW CASES THAT WE HAD. THE CURRENT CASES ARE DECREASING.



THE CASES INCREASED BECAUSE PEOPLE WOULD GO TO A LOCATION THAT WAS CROWDED



THE AMOUNT OF CASES DECREASED BECAUSE EVERYONE STARTED TO STAY INSIDE, SOCIAL DISTANCE, KEEP CLEAN, AND EAT HEALTHY



I THINK THIS MEANS THAT IF WE KEEP DOING THE SAME, SOON WE WILL BE ABLE TO GO OUT. WHEN THE TIME COMES, WE MUST KEEP CLEAN, AND EAT HEALTHY SO THE VIRUS DOESN'T COME BACK.

Conclusion