



pretty cool math things using Net

Logo

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Hey! My class did a project called connect the dots! Or CTD for short. We gathered information using a website called [Net Logo](#)! This is a cool post about my conjectures that I came up with and researched using Net Logo! Conjectures are inferences solely based on a very small amount of information that can then be researched! I hope you enjoy my very first blog post!

Before you continue, [here](#) are some very helpful definitions!

I actually came up with the conjecture: "when  $j$  is a multiple of  $d$  then there will be no lines" on accident!

I was just kind of exploring Net Logo and Put in some random numbers and this came about! I actually was curious about this topic, but, I *didn't* start gathering data until I put in those random numbers and then realized it would help me a lot!

I came up with this conjecture after trying out more numbers that aligned with my observations!

NOTES: I started with the observation and then expanded to all of the others		
conjecture: when $j$ is a multiple of $d$ then there will be no lines		
observation: when dot = 4 if and the jump size is a multiple of four than there will never be a line		
d	j	Does it work?
4	4	yes
4	8	yes
4	12	yes
4	16	yes
4	48	yes
6	6	yes
6	12	yes
6	18	yes
6	36	yes
proved right		

You can see to the left, here are my examples and data for this conjecture.

You can see I experimented with two different numbers as my Dot number and a bunch of different

numbers for my jump size.

As it shows below, you can see, My conjecture is "when  $J$  is a multiple of  $D$  then there will be no lines"

conjecture: when  $j$  is a multiple of  $d$  then there will be no lines

This is true because if you want lines to show up in net logo than you will need to not use the same multiple.

CONJECTURE: if your  $d$  is an even number and your  $j$  is an odd number than it will make some kind of star like shape

$d$	$j$	Does it work?
12	7	yes
10	3	yes
4	3	no

proved wrong by 4 and 3

↑ Above, is an example of a *conjecture* that I proved wrong before I even gathered more data about it! This show that it is very easy to be proved wrong in projects like this! It is also true that there are so many things that you can prove right for every one you prove wrong (:

One setback that happened throughout the process of figuring out this conjecture was, I ended up proving myself long a lot! I didn't realize how tricky it would be to even just find a conjecture. Even with that

setback, this project was very fun and creative. I liked that we had full control of everything basically.

If you would like to see any of my other conjectures, Please click [here](#)!

Net logo is such a cool and creative website! It can be a little tricky at first but... once you get the hang of it, net logo can be super helpful (: