Facebook is a social network millions of people use every day, however, most of them are unaware of the numerous mathematical concepts integrated in this favored website.

There are 2000 students at NFA, Brooke is friends with 722 of them on Facebook, Ryan is friends with 694 of them and they have 307 mutual friends. How many people at NFA are not friends with either of you? What is the probability that a randomly chosen student is not friends with Brooke?

Kaitlyn uploads the picture on the poster board and tags herself along with 7 of her friends in the picture. Those 7 friends tag themselves and 7 different friends. If no one has been tagged in this picture more than once, how many cycles will it take for all of NFA to be tagged? (There are 2000 students)

Jaime starts out with 15 friends and Brandi starts out with 3. Jaime’s friends grow ¾ as fast as Brandi’s friends. On what day does Brandi have more friends than Jaime? (You may use the graph if you’d like, but it is not required)



If x is the number of minutes your friend is signed on Facebook and y is the number of comments you get from that friend. The relationship between the two is y=$2x^{2}-9x$. How long is your friend on Facebook when she leaves her first comment on your wall? According to this graph, if your friend has been on Facebook for 30 minutes, how many comments have they left you? Does this make sense?