Friends You Can Count On:  

Level C

You have a friendship club. There are 12 members in your club. On the twelfth day of each month, you have a friendship call. Each member of the club talks to every other member by phone that day so that all members express their friendship with each other. How many conversations are made on that day?

How many conversations occur each year? Show how you figured it out.

If the club adds 4 new friends, how many conversations would occur each month? Explain your solution.

Suppose another friendship club likes your friendship conversation idea, but wants to know how they can figure out how many conversations will occur given any number of members. Explain how they can figure out the total number of conversations for each month.