- 1. Do there exists two non-bald people on the planet who have exactly the same number of hairs on their body?
- 2. Someone offers to give you as much money as you want. The money is given to you in \$1 bills. To receive the money, you must lie down, the money is placed on your stomach. If you keep them on for 10 minutes, the money is yours. How much money do you ask for?
- 3. How many times can you fold a piece of papers?
- 4. How many times must one roll a single die to guarantee that the same score is obtained 10 times?
- 5. Is every natural number interesting?
- 6. If everyone in the class chooses 3 of 6 colors of the rainbow (red, orange, yellow, green, blue, violet), what are the chances that 2 students picks the same set of colors?
- 7. In a group of 6 friends, there will always be three people that are mutual friends or mutual strangers.
- 8. Show that, in every party, there are two people who know the same number of people.
- 9. (This is the same problem as the last one) Suppose 10 baseball teams play in a tournament. If no two teams play each other more than once, is it possible that no two teams have played the same number of games?
- 10. There were 61 million people who died in 2023. Show that, some year soon, more that 70 million people will die.
- 11. Almost every number contains 3 as a digit.
- 12. You can group the students in the class into two groups of people such that the sum of ages is the same in both groups.