This extra credit assignment is worth 10 points total. The extra points will be added to your highest homework score (or distributed across your highest homework scores).

Please pick one of the following two problems. You will only get credit for one.

Problem 1: The four color theorem is a famous theorem in mathematics that says that every map can be colored with four or fewer colors. Write a one page (double spaced) summary of the history and importance of the problem. Also, include a second page with a figure.

Problem 2: Prove that \( \lim_{n \to \infty} \frac{10}{n^2 + 2} \neq \frac{1}{2}. \)