WEEK 5 ASSIGNMENT

Write a 1-2 page response to your readings. You may choose some questions from the list below, but you are encouraged to raise your own questions. Your paper must touch upon all the readings assigned for the upcoming session. Some sections in the readings are highly technical; you can skip the technical details and focus on a larger argument. Please spell-check and proof-read your paper before submission.

1. Do you think the distinction between "human-like" and "non-human-like" approaches to automated proving is meaningful? If so, which one would you support?

2. How do attitudes toward the possibility of artificial intelligence match with different approaches to automatic proving? Contrast the arguments by Dreyfus and Lighthill. Do you agree with either one?

3. Is there a tension between "human-like" and "non-human-like" procedures in your own field of specialty? How is it resolved?

4. Do you agree with Daniel Cohen that any mathematical proof must serve an explanatory function? Can a computer-assisted proof serve this function?

5. If you had to choose between formality and surveyability of proof, what would you choose?

6. Who is more reliable – the computer or the human mathematician? Whom do you trust?

7. What social and institutional factors informed the opposing positions in the debate over the Appel-Haken solution? Can you give examples where similar factors shaped debates over other computer uses?