1. **Briefly discuss one contrast Brooks draws between Software Engineering and other areas or science or engineering.**

   Areas of science and engineering have a paradigm where a simple model of a phenomena can be created to demonstrate a more complex model. This helped these areas [outside of software engineering] because model's complexities that were ignored were not the essential component of a phenomena. In software engineering, the complexities are the essential part of the phenomena. In other sciences, we have an option to develop properties from various models and verify such properties by experimenting, to come up with a simpler model, which is not the case in software engineering.

2. **Brooks discusses several "Hopes for the silver", but his comments are about the state of the art in 1987. Describe one "hope for the silver" that you see today, but that Brooks did not see back then. Or, if you are a pessimist, explain why there is no hope.**

   I believe the AI-1 definition and usage in real world scenario was taken very lightly by Brooks. It may not be as revolutionary as other silver bullets, such as Object-oriented programming and Graphical programming. However, this simple idea of AI-1 is redefining people's life, but also our redefining society in terms of privacy, federal laws, and data storing. This simple AI-1, whether image or speech recognition applications have become part of human daily lives; within our phones, our smart home devices such as Amazon Alex and Google Nest, language translation applications, Tesla in-vehicle or in-car systems, call center bots, etc. In addition, the same can be said about their negative impacts on a larger society and how much improvement is needed to shelter humans from the negative impacts; such as in military weapons or in authoritarian regimes to spy on citizens. It may not have started in a unique field experiment in AI-1, but all above has evolved from it. Most of AI-1 work is not a problem-specific as stated in the paper, especially not in our intertwined societies because one application or problem feeds of another and eventually develop into whole companies, industries that are catering to such AIs. The marginal gains were not truly seen in 1980s, but in today's society, how personal devices and corporate or government agenda is headed, we are seeing a larger enough impact of AI than initially anticipated back in 1980s.