

This essay is outstanding inasmuch as the student created his own research question. It is also outstanding in its use of technology to suggest his line of mathematical research (but not to replace it). Its weaknesses (the possible applications mentioned but not shown, the incorrect use of the term “induction”) are more than compensated by the clarity of the explanations and most particularly by the conclusion which shows a great awareness of possible significant unanswered questions and extensions.

It must be emphasized, however, that creating one’s own research question (as opposed to tackling some standard problem) is not at all necessary in order to write a good extended essay in mathematics and is fraught with dangers; too often students who have created their own research questions have ended up with trivial, elementary problems, not substantial enough to lead to meaningful essays.

This essay shows, however, that this problem can be avoided.