Name(s)	Project Number
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Project Title

Fun with Fibonacci

Abstract

Objectives/Goals
The objective is to determine whether there is a ratio between the areas under curves with Fibonacci number intervals.

Methods/Materials
I used a graphing calculator and a ruler to do my project. I decided to test my question with several different types of equations- linear, parabolic, x-cubed, and logarithmic/exponential. I found the areas under the curves between the Fibonacci intervals. I also found the areas under curves between the Lucas numbers for a control group. I used these areas to try to find a ratio. I divided the first area by the second area, then the second area by the third, and the third by the fourth, continuing in this fashion until I'd divided all of the numbers into a ratio.

Results
The areas under parabolic curves with intervals of Lucas Numbers and Fibonacci Numbers had a ratio (but not perfectly.) X-cubed graphs and linear equations also had a ratio, which was more consistent than the ratio between the areas under parabolic curves. One of the most interesting things about this was that the areas under the curves using Lucas Numbers or Fibonacci Numbers led to the same ratio.

Conclusions/Discussion
There could be a #golden area# for areas under curves.

Summary Statement
My project analyzes Fibonacci numbers and the golden ratio.

Help Received