Name: _____

Fun with Patterns: Fibonacci Numbers

Fibonacci was a real person! His actual name was Leonardo of Pisa, since he was born in Pisa, Italy around 1175 A.D. He is called Fibonacci because his father's last name was Bonaccio, so Fibonacci means "son of Bonaccio." He was one of the first people to introduce the types of numbers we use today (until then, people used Roman Numerals).

Fibonacci numbers are a **sequence (pattern)** of numbers. Look at the table and see if you can write a rule for the pattern. Finish the pattern in the next thee boxes.

0	1	1	2	3	5	8	13			

What is the rule?

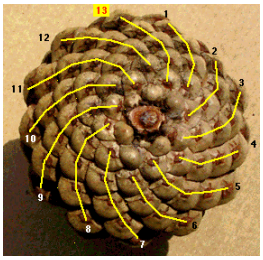
_____

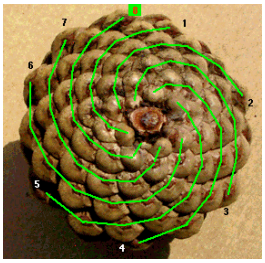
Are Fibonacci numbers a repeating pattern or a growing pattern?

_____

Fibonacci numbers appear everywhere in nature. They help explain how things grow. Many plants show the Fibonacci numbers in the pattern of leaves around the stem. They grow in a spiral pattern.

Pine cones show Fibonacci Spirals. Pine cones are often found here in Ohio and come from **conifer trees** (trees that are evergreen and have cones). Observe the pine cone. Can you see the two sets of spirals? Both sets are Fibonacci numbers.





Observe your pine cone. Start at the center and try to count the number of spirals. Count each seed head in the spirals. They should all be Fibonacci Numbers!

I counted _____ spirals going one way and _____ spirals going the other way.

I counted _____ seed heads in my spirals.