

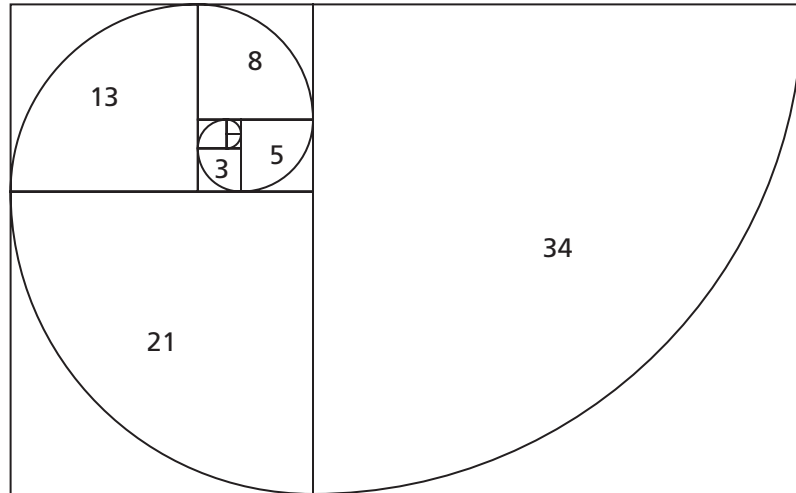
### Geometric Fibonacci Patterns

#### EXAMPLE 3 Drawing the Fibonacci Spiral

Using only a compass and a ruler, draw the Fibonacci spiral.

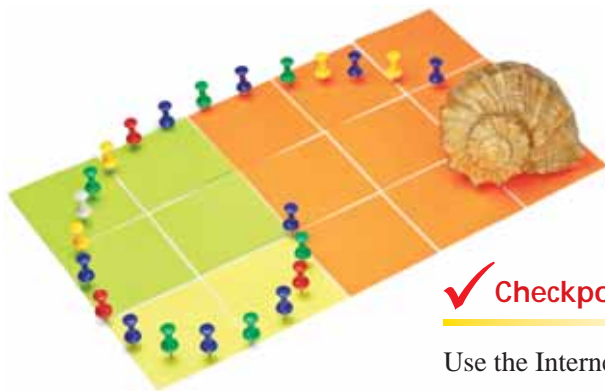
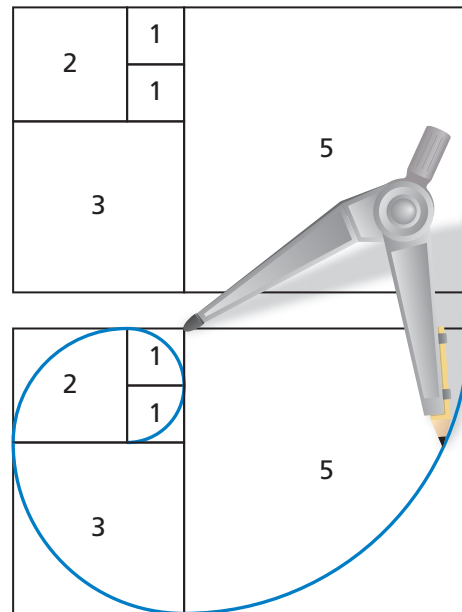


The shell of a chambered nautilus is a spiral. The spiral can be described mathematically as a Fibonacci spiral.



#### SOLUTION

- Begin by drawing two 1-unit squares.
- Adjoin a 2-unit square.
- Adjoin a 3-unit square.
- Adjoin a 5-unit square.
- Use a compass to draw quarter-circle arcs inside each square. Locate the arcs so that they form a continuous spiral.



You can use sticky notes and thumbtacks to create a Fibonacci spiral.

#### ✓ Checkpoint

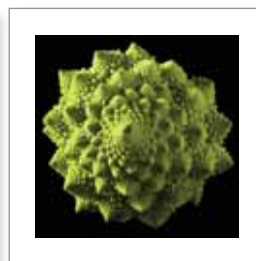
Help at [Math.andYOU.com](http://Math.andYOU.com)

Use the Internet to identify the following Fibonacci spirals in nature.

a.



b.



c.

