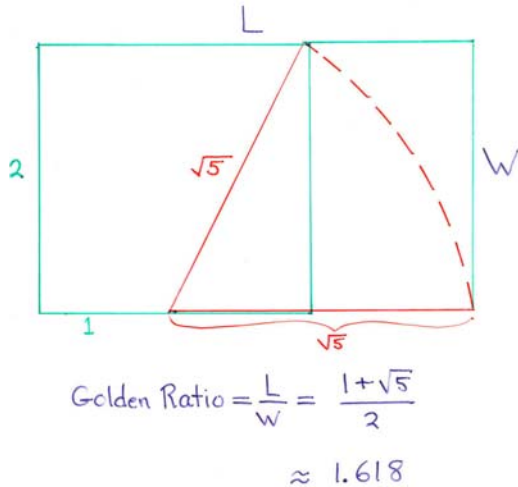


Problems to Add to Assignment 11

1. Here is the golden rectangle we worked with in class. It is constructed from a square of side 2. Construct a golden rectangle from a square of side 8. Then show that the ration of length to width is the golden ratio.



2. In the golden rectangle above, constructed from a square of side 2, the smaller rectangle on the right is also a golden rectangle. Show that the ratio of length to width in the smaller rectangle is the golden ratio.

3. In 1993, a ski resort in Vermont advertised their new high-speed chair lift as “the world’s fastest chair lift, with a speed of 1,100 feet per second.” Convert this speed to miles per hour to show why the speed cannot be correct. (5,280 feet = 1 mile)

4. The volcanic rock on the island of Kauai is approximately 5 million years old. Kauai is 519 kilometers from Kilauea, the volcano on the island of Hawaii. This means the pacific plate is moving 519 km every 5 million years. What is the rate of movement in cm/year? (1 km = 1,000 meters and 100 cm = 1 meter)

5. In Section 3.5, read Pages 316 and 317, and in your own words explain what is being shown in Example 1. Reproducing the three graphs in the margin on your graphing calculator is a good idea.

6. On Pages 80 – 82, in the Highlights for Chapter P, look at the examples in the right-hand margin of each page. Then list 5 problems you do not know how to do. (If you know how to do all those problems, say so.)

7. On Pages 177 through 178, in the Review for Chapter 1, list 5 quadratic equations you know how to solve. Don't solve them, just list them.

8. On Page 265 and 266, in the Chapter 2 Test and the Tying it all Together, list 5 problems similar to problems on Test 1.