Homework 8
Due Date: April 1

All problems are to be answered in completed sentences. Note that “No” and “Yes” are not complete sentences.

Book Problems:

- Chapter 6.3, pages 450-457: 14, 21
- Chapter 6.4, pages 476-481: 3, 6

Other Problems:

Problem 1. For the object in Problem 6.3.21, if we started with a line segment of length 10 feet (Step 1), how long would our “stool” be after Step 3? After Step 10?

Problem 2. Read Story 6 on pages 9-10, and let’s call Step 1 the stage when the entire carpet is purple. Here, we could say that there are no gold squares and 1 purple square. Then at Step 2, the middle square is gold, and the rest is purple. Accordingly, at Step 2 we could say that the proportion of gold is $\frac{1}{9}$, and that there are 8 purple squares and 1 gold square.

- Find the proportion of gold after Step 3 and after step 4. Find the proportion of gold after the “final” step.
- How many purple squares are there after Step 10? How many gold squares are there after Step 10?