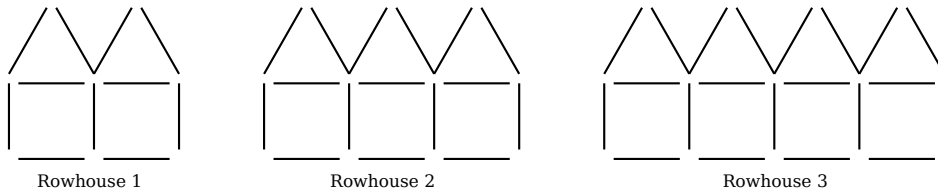


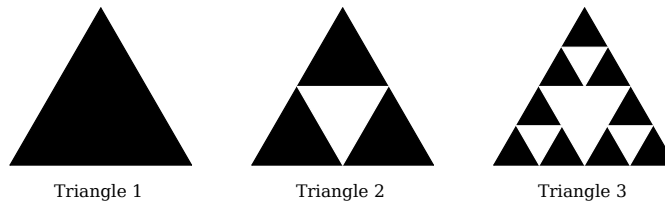
Math 1124: Homework 2
Due: Wednesday, September 5th

1) Below, we are given a sequence of “rowhouses” made by toothpicks:



What is the total number of toothpicks will it take to make all the rowhouses starting with rowhouse 1 and going to rowhouse 128? Give a detailed explanation of your reasoning.

2) Below, we are given a sequence of triangles:



Assuming that triangle 1 has an area of 1 square unit, what is the total blackened area contained in all the triangles starting with triangle 1 and going to triangle 78? Give a detailed explanation of your reasoning.