FAPP 9e Writing Projects – Chapter 20

1. Get computer software to make some tilings of your own. Check for software at www.geom.uiuc.edu/software/tilings/TilingSoftware.html. Print out your tilings and describe, in a sentence or two each, how you made them.

2. You can build a model of a buckyball by weaving strips of paper in a hexagonal pattern, much as peoples in Africa and elsewhere weave baskets and balls. Background material and instructions on doing this are at http://www.ccd.rpi.edu/Eglash/csdt/african/hex/intro.html. Make such a buckyball, preferably with colored strips. Explain why the result is a buckyball. The construction depends on the fact that when a strand is wrapped around a rim of the same width, a 60-degree angle results. Explain why this is so, and experiment to try to determine what angles are formed when the strand and rim are not the same width (e.g., when the strand is twice as wide as the rim or half as wide).