1125-AH-73 Henry Segerman* (segerman@math.okstate.edu). Design by transformation.

Many mathematical models can be constructed via the following general procedure: Take a relatively simple shape in three-dimensional space, and transform it in some way to produce the desired model. An example would be to take a rectangular grid, and twist it into a Möbius strip grid. This technique is particularly useful when one designs the input geometry by-hand in a graphical CAD program, then transforms that geometry using a script. This allows for rapid iteration of a design, in a far more convenient and expressive form than if the geometry of the final model were entirely generated by programming. (Received July 10, 2016)