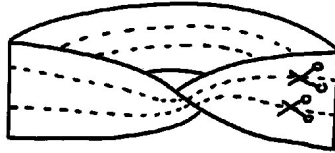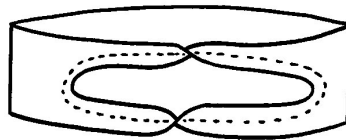# Problem set 6, assigned on 10/27/19

1. How many pieces result if a Möbius band is cut into thirds? How many pieces result if a band with three half twists is cut into thirds?
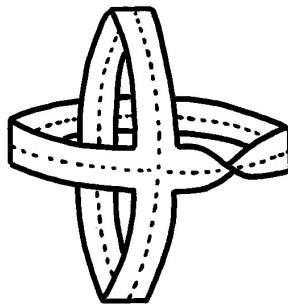

2. In class we cut the shape as in the figure below, with two half-twists that were in the *same* direction.

What happens when you do this cut with half-twists in the *opposite* directions? What if the bands half more half-twists?

3. In class we experimented with cutting the shape with two bands, one of which is half-twisted, as in the figure below.

What happens when you do the same cut where *both* bands are half-twisted? What is there are more half-twists in each band?