

- (5) Identify the part of your simplicial decomposition which corresponds to the dotted line along which we initially cut.
- (6) Use your simplicial decomposition of each piece of the 2-holed torus to create a simplicial decomposition of the 2-holed torus.
- (7) What is χ for this simplicial decomposition of a 2-holed torus?
- (8) Can you generalize your simplicial decomposition for a 2-holed torus to get a simplicial decomposition of a 3-holed torus?
- (9) What is χ for this simplicial decomposition of a 3-holed torus?
- (10) Can you generalize your simplicial decomposition for a 3-holed torus to get a simplicial decomposition for a g -holed torus?
- (11) What is χ for this simplicial decomposition for an g -holed torus?
- (12) Can you make a conjecture regarding the value of χ for ANY simplicial decomposition of a g -holed torus?
- (13) What would you have to prove to show that your conjecture is true?