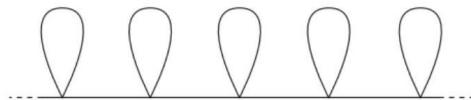


MAT 4002 Homework 12

1. Compute an explicit free generating set for the fundamental group of the following graph:



2. By applying Seifert van Kempen's theorem, show that the fundamental group of the following space is trivial:
 - (a) The n-sphere S^n for $n \geq 2$.
 - (b) The 'dunce hat' whose triangulation is given by:

