## Comprehension questions

Problem 40.1. On an octahedron (made out of equilateral triangles), find a geodesic that's periodic.

Problem 40.2. Can a translation surface have positive Euler characteristic?

PROBLEM 40.3. Take a triangle with angles  $(\pi/7, 2\pi/7, 4\pi/7)$ . How many triangles make up the translation surface? What is its Euler characteristic?

MIT OpenCourseWare <a href="https://ocw.mit.edu">https://ocw.mit.edu</a>

18.900 Geometry and Topology in the Plane Spring 2023

For information about citing these materials or our Terms of Use, visit: <a href="https://ocw.mit.edu/terms">https://ocw.mit.edu/terms</a>.