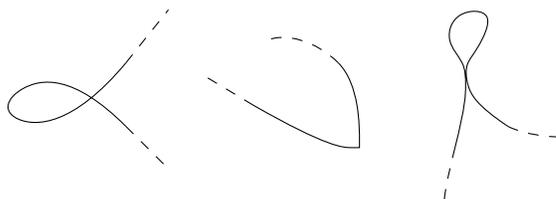


Comprehension questions

PROBLEM 38.1. Which of the following can not, on general principles, be a picture of a geodesic?

(38.17)



PROBLEM 38.2. For $\psi(x, y) = -\frac{1}{2} \ln(x^2 + y^2)$, which circles around the origin are geodesics? (Note: this curved geometry is not defined at the origin.)

PROBLEM 38.3. Find a curved geometry in which, among all horizontal lines, exactly those with integer y -value are geodesics.

MIT OpenCourseWare
<https://ocw.mit.edu>

18.900 Geometry and Topology in the Plane
Spring 2023

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