Directions. Please submit your answer to the following problem in a LaTeX-prepared document. Class participants are encouraged to prepare solutions in a collaborative mode but to prepare their to-be-submitted write-ups individually. The consequences of sharing files, electronic or otherwise, are discussed in the course syllabus.¹

Please include the problem number along with a statement of the problem in your submission. Please also include your e-mail address.

Problem. Prove that a metric space with the discrete metric and containing at least two points, is not connected.

¹If the wording of this problem was discussed in detail in the classroom, the course instructor expects to see similar phrases and sentences in reading the submissions.