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.\footnote{If 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.}

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

Recall that two sets have the same cardinality if there exists a 1-1 function from one onto the other.

**Problem.** Prove that the set of integers and the set of even integers have the same cardinality.