

MATH/CSE 1019 Discrete Math for Computer Science

Assignment 4

Released: October 22, 2012

Due: 1 pm, October 30, 2012

Notes:

1. No late submissions will be graded.
2. Submit your assignment using the dropbox, which is located on the 1st floor of LAS.
3. You must do the assignment by yourself
4. Submit this assignment only if you have read and understood the policy on academic honesty on the course web page. If you have questions or concerns, please contact the instructor.

Questions:

1. (7 points) Give a formula for $\sum_{i=0}^n \sum_{j=0}^i (3j + 1)$. Show your steps.
2. (7 points) Prove that the Cartesian product of any finite set with any countably infinite set is countably infinite.