



Lewis & Clark College

Department of Mathematical Sciences

Problem of the Week #7 (Spring 2018)

For any real numbers a, b with $a < b$, let $[a, b]$ denote the closed interval with end points a and b . Given any finite collection of closed intervals

$$[a_1, b_1], [a_2, b_2], \dots, [a_n, b_n]$$

such that any two of them have at least one point in common, show that there must be some point common to all the intervals.

- Solvers should include their name, address, and status at the College. Solutions can be mailed to MSC 110 via campus mail or placed in Yung-Pin Chen's mailbox in the Math Department Office. Solutions to the above *Problem of the Week* should be received by 5:00 p.m. Monday, March 12, 2018.
- We did not receive a solution for *Problem of the Week* #6, except a solution provided by the problem contributor.