

Math-Circle: Session 1

TIFR-CAM and ICTS

October 24, 2022

Problem 3 (Logic) . A couple (let's call them Sharmila and Prakash) invite five couples over for dinner. When they meet, there are introductions and some of the people shake hands. Of course, one does not shake one's own hand and that of his/her spouse. Sharmila notices that of the other people (excluding herself) in the gathering, no two people shake the same number of hands. How many hands does Prakash shake?