

Homework 9 Problem 1 Solution

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Problem 1.

Let us count the total number of friendships. Let this number be denoted by e . Then if we add up the numbers of friends for everybody, we will get $9 \cdot 3 + 11 \cdot 4 + 10 \cdot 5 = 121$. On the other hand, in this number every friendship is counted twice, from the perspectives of both friends. Thus $121 = 2e$. But 121 is odd, so this is impossible.