



Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: April 2018

We say that a group of 18 students is a *team* if any two students in this group are friends. It is known that in the school any student belongs to at least one team but if any two students end their friendships at least one student does not belong to any team. We say that a team is *special* if at least one student of the team has no friend outside of this team. Show that any two friends belong to some special team.