db.posts1.aggregate([

{$lookup:{

from:"posts1",

localField:"Id",

foreignField:"ParentId",

as:"Answers"}

},

{$lookup:{

from:"users",

localField:"Answers.OwnerUserId",

foreignField:"Id",

as:"Owners"}

},

{$lookup:{

from:"users",

localField:"Answers.LastEditorUserId",

foreignField:"Id",

as:"Editors"}

},

{$addFields:{"question\_users":["$OwnerUserId","$LastEditorUserId"]}},

{$project:{\_id:0,Id:1,involved\_users:{$setUnion:["$Owners.Id","$Editors.Id","$question\_users"]}}},

//after match a user id here, all the remaining users are co-authors of the user

{$match:{"involved\_users":18}},

{$unwind:"$involved\_users"},

{$group:{\_id: "$involved\_users", num\_cooperation: {$sum:1}}},

{$sort:{num\_cooperation:-1}},

{$match:{"\_id":{$ne:18}}},

{$match:{"\_id":{$ne:0}}},

{$limit:5}

])