

Chapter 1, Section 2

Exercise no. 18

Question:

When planning a party you want to know whom to invite. Among the people you would like to invite are three touchy friends. You know that if Jasmine attends, she will become unhappy if Samir is there, Samir will attend only if Kanti will be there, and Kanti will not attend unless Jasmine also does. Which combinations of these three friends can you invite so as not to make someone unhappy?

Answer:

Jasmine needs Kanti to come and Kanti needs Samir to come. So, only Samir can be invited alone.

Jasmine won't come if Samir comes. Again, Jasmine and Kanti can't be invited together. Because, Kanti needs Samir to come but Jasmine doesn't want to. However, Samir and Kanti can come together. So, among the combinations involving any two, only Samir-Kanti is acceptable.

All three of them can't be invited together because Jasmine will be unhappy if Samir comes.

So, the possible combinations are:

1. Samir
2. Samir and Kanti