



Problem of the Month

Problem 0: What's my card?

September 2024

Hint

- (a) Would this dialogue be possible if Adina saw a 3 on Budi's card? Make sure you keep in mind that no player will ever ask a question to which they already know the answer!
 - (b) To narrow the search for the answer, determine all possible sets of three distinct integers between 1 and 10 inclusive that have a sum equal to a perfect square. Going from there, you might want to explore what would happen for some particular configurations of the cards. For instance, if the integers are 1, 2, and 6, would it be possible for all players to determine the integer on their card from the dialogue given?
 - (c) The general strategy for this problem is similar to that in (b), but you will need to carefully examine how the players would be able to eliminate possibilities based on what the other players are able to infer. Experimenting with various configurations of the cards will likely be helpful.
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