## Finding triplets in "Dobble"

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## Abstract

"Dobble" is a very popular card game since it released in 2009. It consists of 55 cards, with 8 different symbols on each card. Any two cards have exactly one symbol in common. The object of dobble is to spot the identical symbol between two cards, name it out loud and then take the card, place it or discard it, depending on the rules of the games you are currently playing. In the newest official rulebook of dobble, there are 5 mini-games: The Tower, The Well, Hot Potato, The Poisoned Gift, and Triplet. The object of "Triplet" is to find any 3 cards which have the same symbol from the 9 face-up cards on the table. Does the solution always exist? How about any 8 cards? We proved more general results and designed a new game called agrinding Tripletsal according to the mathematical theorems.

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