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Mathematics forms the basis for many types of card tricks. One of the most well-known trick works as follows: take any 15 cards out of a deck and ask a volunteer to select one of the cards and place it back in the deck. After shuffling the cards, you deal out 3 piles of cards and ask the volunteer which pile his or her card is in. You collect up the three piles and repeat this deal/collection procedure twice more and then magically select the volunteer's card from the deck.

You can find many variations and analyses of this trick in various magic books and at several websites, using anywhere from 15 to 27 cards. Our purpose here is to analyze this trick in a manner which leads to two nice modifications of the trick. The first modification allows you to place the card in any location in the deck, and the second gives the volunteer full "control" over the trick: he/she deals out the cards as well as picks up the piles (in any order that they like). Even with this lack of control, the magician can pick the card correctly 87% of the time on the first try, and 100% on the second try. We then show how we can extend this trick to larger number of piles and cards. (Received September 07, 2007)