

STOP AT 4

Investigation Guide B

Two more card 'tricks' to investigate.
Prepare a report about what you discover.

1. Here is a trick that is similar to the card, but different.

Shuffle a full deck of cards, without jokers. Count out 12 of them face down. Hand this pile to someone and have them note the card which is second from the top. This will be the 'target' card. This pile of 12 is left on the table, face down.

There are 40 cards left. Turn these face up. Put down the top card as a 'starter' as in the task card, and add more cards to its pile until you get to 'thirteen'. (Jacks have the value 11, Queens 12 and Kings 13.)

Repeat with the next card, and so on, until there are three piles. Turn these three piles over. Put the remaining cards face down on top of the pile of 12.

Now turn over the top card of each of the three you created. Add these three values.

Pick up the pile made up of the remainder and the 12. One at a time, take off the number of cards that was the answer to the addition. Which card is now on top?

Does it always work? Why?

2. A slight variation on the trick above.

Deal out two equal piles, so there are 26 in each.

Ask someone to look at the seventh card down in one pile.

This time picture cards will have the value of 10. After putting out a starter card, add cards until you reach the number 'eleven'.

Continue the trick as above.

There will be a few situations where this trick does not work. Can you find them and explain why?