

07	9b	<p>A pack of 52 cards consists of four suits with 13 cards in each suit.</p> <p>(i) One card is drawn from the pack and kept on the table. A second card is drawn and placed beside it on the table. What is the probability that the second card is from a different suit to the first?</p> <p>(ii) The two cards are replaced and the pack shuffled. Four cards are chosen from the pack and placed side by side on the table. What is the probability that these four cards are all from different suits?</p>	<p>1</p> <p>2</p>
<p>i. $P(\text{different suit}) = \frac{39}{51}$</p> <p>ii. $P(\text{four different suits}) = \frac{39}{51} \times \frac{26}{50} \times \frac{13}{49}$</p> $= \frac{2197}{20825}$			

* These solutions have been provided by *projectmaths* and are not supplied or endorsed by the Board of Studies

Board of Studies: Notes from the Marking Centre

- (i) Many responses complicated the question by constructing tree diagrams.
- (ii) Most responses that showed working were able to obtain at least one mark for demonstrating that the cards were not replaced.

Source: http://www.boardofstudies.nsw.edu.au/hsc_exams/