

11	2e	Alex's playlist consists of 40 different songs that can be arranged in any order. (i) How many arrangements are there for the 40 songs? (ii) Alex decides that she wants to play her three favourite songs first, in any order. How many arrangements of the 40 songs are now possible?	1 1
(i)	Number of arrangements = $40 \times 39 \times 38 \dots$ $= 40!$		State Mean: 0.96/2 0.54/1
(ii)	Number of arrangements = $3! \times 37!$		

* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by the Board of Studies

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(ii) The most common misinterpretation was to group the three favourite songs then play them randomly among the other 37 songs.

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