07	4b	Two ordinary dice are rolled. The score is the sum of the numbers on the top faces. (i) What is the probability that the score is 10? (ii) What is the probability that the score is not 10?	 **2** **1**

i. 36 different outcomes: (1, 1), (1, 2), … , (6, 6)

Score = 10: (4, 6), (5, 5), (6, 4)

$$\text{P(score of 10)} = \frac{3}{36} = \frac{1}{12}$$

ii. $$\text{P(not 10)} = 1 - \text{P(score of 10)} = 1 - \frac{1}{12} = \frac{11}{12}$$

* 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) The responses that included a sample space enjoyed a higher rate of success than those that tried to write an algorithm. Common errors were counting (5, 5) twice and finding the product. Some candidates did not understand the word 'dice'.

(ii) Most responses demonstrated an understanding of the complement.

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