5 Maryam has 7 sweets in a tin; 6 are toffees and 1 is a chocolate. She chooses one sweet at random and takes it out. Her friend adds 3 chocolates to the tin. Then Maryam takes another sweet at random out of the tin.

(i) Draw a fully labelled tree diagram to illustrate this situation. [3]

(ii) Draw up the probability distribution table for the number of toffees taken. [3]

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(iii) Find the mean number of toffees taken. [1]

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(iv) Find the probability that the first sweet taken is a chocolate, given that the second sweet taken is a toffee. [4]

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