



1. Fifty seniors were asked to give their South Carolina college acceptances for a study. The results are listed in the table below.

	USC	Clemson	Furman	Total
Boys	10	6	5	21
Girls	7	14	8	29
Total	17	20	13	50

A girl is chosen at random.

- (a) State the number of girls who were accepted to Clemson. (1 mark)
- (b) Find the probability that the girl was accepted to Furman. (2 marks)
- (c) Two boys are selected at random. Calculate the probability that one boy got accepted to USC and the other to Clemson. (3 marks)

Mark scheme:

- (a) 14 (A1)
- (b) $\frac{8}{29}$ (A1) for the numerator
(A1) for the denominator
- (c) $\left(\frac{10}{21} * \frac{6}{20}\right) + \left(\frac{6}{21} * \frac{10}{21}\right)$ (A1) for the product of the correct probabilities
(M1) for the sum of the two products or doubling one product
 $= \frac{2}{7}$ or 0.285714 (A1)