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| **Topic 4: Statistics and Probability** | **Distribution Tables** |
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| 1. Fifty seniors were asked to give their South Carolina college acceptances for a study. The results are listed in the table below.
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|  | **USC** | **Clemson** | **Furman** | **Total** |
| **Boys** | 10 | 6 | 5 | 21 |
| **Girls** | 7 | 14 | 8 | 29 |
| **Total** | 17 | 20 | 13 | 50 |

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| A girl is chosen at random.1. State the number of girls who were accepted to Clemson.
2. Find the probability that the girl was accepted to Furman.
3. Two boys are selected at random. Calculate the probability that one boy got accepted to USC and the other to Clemson.

Mark scheme:1. 14
2. $\frac{8}{29}$
3. $\left(\frac{10}{21}\*\frac{6}{20}\right)+\left(\frac{6}{21}\*\frac{10}{21}\right)$

$=\frac{2}{7}$ or $0.285714$ | (1 mark)(2 marks)(3 marks)(A1)(A1) for the numerator(A1) for the denominator(A1) for the product of the correct probabilities(M1) for the sum of the two products or doubling one product(A1) |
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