InkMaths

QUESTION WORKBOOK

Contingency tables

Further Statistics 1 · Year FM

6 questions · 20 marks

PRINT EDITION

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SECTION A · Warm-up

A1 State the null hypothesis of a contingency table test, and the formula for an expected frequency. [2]

A2 A contingency table has 4 rows and 5 columns. State the degrees of freedom. [2]

SECTION B · Standard

B1 A survey gives the rows (25, 15, 10) and (15, 25, 10). Find all six expected frequencies. [4]

B2 Using those figures, compute the chi-squared statistic and test for association at the 5% level, given a critical value of 5.991. [4]

B3 A 2 × 2 contingency table has all four expected frequencies above 5. Explain why it carries only one degree of freedom. [4]

SECTION C · Stretch

C1 A test on a contingency table gives a significant result. Explain what may and may not be concluded from it. [4]