

1995 Paper 1 Question 8

Discrete Mathematics

If S_i , ($0 \leq i < k$) are finite sets, give without proof a formula for $|\bigcup_i S_i|$ in terms of the sizes of S_i and the intersections of sets of S_i 's.

Use this to yield an explicit formula for the number of surjections from a set A to a set B .

[20 marks]