

$$\sum_{i=1}^3 \sum_{j=1}^4 a_{ij} = \sum_{j=1}^4 a_{1j} + \sum_{j=1}^4 a_{2j} + \sum_{j=1}^4 a_{3j}$$
$$= a_{11} + a_{12} + a_{13} + a_{14} + a_{21} + a_{22} + a_{23} + a_{24} + a_{31} + a_{32} + a_{33} + a_{34}$$