

Pierre Frédéric Sarrus (10 March 1798, Saint-Affrique - 20 November 1861) was a French mathematician. Sarrus was professor at the University of Strasbourg, France (1826-1856) and member of the Academy of Sciences in Paris (1842). He discovered a mnemonic rule for solving the determinant of a 3-by-3 matrix, named Sarrus' scheme, which provides an easy-to-remember method of working out the determinant of a 3-by-3 matrix (as illustrated below)

$$\det(M) = \begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{vmatrix}$$

$$= (a_{11}a_{22}a_{33} + a_{21}a_{32}a_{13} + a_{31}a_{12}a_{23}) - (a_{13}a_{22}a_{31} + a_{23}a_{32}a_{11} + a_{33}a_{12}a_{21})$$

