$$p(t) = \det(A - t \cdot \mathrm{Id}) = \begin{vmatrix} a_{11} - t & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} - t & \dots & a_{2n} \\ \vdots & \vdots & & \vdots \\ a_{n1} & a_{n2} & \dots & a_{nn} - t \end{vmatrix}$$