Determinant

Definition: Determinant

$$\det \begin{bmatrix} a_1 & a_2 \\ b_1 & b_2 \end{bmatrix} = a_1 b_2 - a_2 b_1$$

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\begin{bmatrix}
a{1} & a{2} & a{3} \\
b{1} & b{2} & b{3} \\
c{1} & c{2} & c{3}
\end{bmatrix} = a{1} \det \begin{bmatrix}
b{2} & b{3} \\
c{2} & c{3}
\end{bmatrix} - a{2} \det \begin{bmatrix}
b{1} & b{3} \\
c{1} & c{3}
\end{bmatrix} + a{3} \det \begin{bmatrix}
b{1} & b{2} \\
c{1} & c{2}
\end{bmatrix}
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\det A = \det A^{T}
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$$> ropery :>$$

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\det (XY)=\det X\det Y
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