Calc in 3d Notes

saffron_

Contents

test

Hello world! Did you know that $3^2 + 4^2 = 5^2$?

All human things are subject to decay. And when fate summons, Monarchs must obey.

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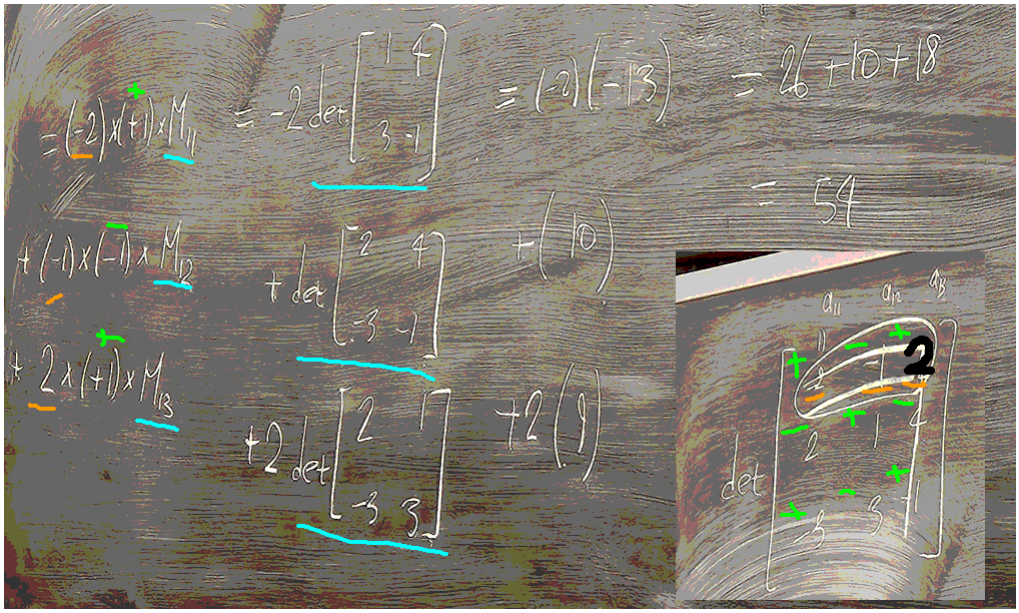
Appendix

matrices, 3x3 determinants

Recall that a elements of a matrix are enumerated a_{ij} where i is column and j is row, both 1-indexed.

$$\begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{bmatrix}$$



Recall that the minor of the matrix element here is the 2 by 2 determinant when you take away the row and column of the element in a 3 by 3 matrix. Picking an arbitrary row (or even column), with a_{ij} being an element and M_{ij} being a minor, a 3 by 3 determinant is calculated by

$$\sum_{j=1}^{3} (-1)^{i+j} a_{ij} M_{ij}$$

In the figure above, $(-1)^{i+j}$ is in green, a_{ij} in orange, and M_{ij} in blue.