Correction

Correction: A Space Efficient Flexible Pivot Selection Approach to Evaluate Determinant and Inverse of a Matrix

The PLOS ONE Staff

Several of the equations in this article are incorrect.

In the Determinant of A Matrix: A Brief Review section under the subheading “Evaluation of determinant by row reduction”, the seventh expression is incorrect. The correct expression is:

$$(-2)(-15) \det \begin{bmatrix} 1 & 3 & \frac{1}{2} \\ 0 & 1 & -\frac{1}{2} \\ 0 & 0 & \frac{11}{2} \end{bmatrix}$$

In The New Approach Based on Dictionary Notation section, the example matrices under Step 6 are incorrect. The correct matrices are:

$$\mathbf{A} = \begin{bmatrix} 2 & 5 & 3 & 2 \\ 4 & 10 & 1 & 7 \\ 1 & 5 & 2 & 2 \\ 2 & 1 & 2 & 1 \end{bmatrix} \text{ and } D(\mathbf{A}) = \begin{matrix} & \begin{matrix} x_1 & x_2 & x_3 & x_4 \end{matrix} \\ \begin{matrix} y_1 \\ y_2 \\ y_3 \\ y_4 \end{matrix} & \begin{bmatrix} 2 & 5 & 3 & 2 \\ 4 & 10 & 1 & 7 \\ 1 & 5 & 2 & 2 \\ 2 & 1 & 2 & 1 \end{bmatrix} \end{matrix}$$

In The New Approach Based on Dictionary Notation section, the dictionary in Iteration 4 is incorrect. The correct dictionary is:

$$D(\mathbf{A}) := \begin{matrix} & \begin{matrix} y_1 & y_3 & y_2 & y_4 \end{matrix} \\ \begin{matrix} x_1 \\ x_3 \\ x_2 \\ x_4 \end{matrix} & \begin{bmatrix} \frac{11}{4} & -3 & \frac{1}{4} & -\frac{5}{4} \\ -\frac{7}{4} & 2 & -\frac{1}{4} & \frac{5}{4} \\ \frac{19}{12} & -\frac{4}{3} & \frac{1}{12} & -\frac{13}{12} \\ -\frac{43}{12} & \frac{10}{3} & -\frac{1}{12} & \frac{25}{12} \end{bmatrix} \end{matrix}$$

Reference

1. Jafree HA, Imtiaz M, Inayatullah S, Khan FH, Nizami T (2014) A Space Efficient Flexible Pivot Selection Approach to Evaluate Determinant and Inverse of a Matrix. PLoS ONE 9(2): e87219. doi:10.1371/journal.pone.0087219.

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