
Corrections for First Edition, First Printing (2021)

Important corrections

Problem 4.13a: The answer **positive definite** should be **positive semidefinite**.

Problem 4.15: The expression $2\lambda_1 + 3\lambda_2$ should be $4\lambda_1 + 9\lambda_2$, and the expression $(\lambda_1 - \lambda_2)\mathbf{v} \cdot \mathbf{w}$ should be $(-\lambda_1 - \lambda_2)\mathbf{v} \cdot \mathbf{w}$ in the displayed formula. In the explanation, $\mathbf{v}^T \mathbf{v} = \|\mathbf{v}\| = 2$ should be $\mathbf{v}^T \mathbf{v} = \|\mathbf{v}\|^2 = 4$, $\mathbf{w}^T \mathbf{w} = \|\mathbf{w}\| = 3$ should be $\mathbf{w}^T \mathbf{w} = \|\mathbf{w}\|^2 = 9$, and the last part, starting from **We claim that...** should be replaced by **If $\lambda_1 \neq \lambda_2$, then $\mathbf{v} \cdot \mathbf{w} = 0$. Hence $f(\mathbf{v} - \mathbf{w}) = 4\lambda_1 + 9\lambda_2$ when $\lambda_1 \neq \lambda_2$, and if $\lambda_1 = \lambda_2$, then $f(\mathbf{v} - \mathbf{w}) = 13\lambda_1 - 2\lambda_1 \mathbf{v} \cdot \mathbf{w}$.**