The Frobenius matrix norm (also known as the Euclidian norm) is a matrix norm defined as the square root of the sum of the absolute squares of its elements. It is analogous to calculating the magnitude of a vector by taking the square root of the sum of the squares of its elements. The Frobenius matrix is also analogous to calculating the 2-norm of a vector.

Not all matrices are consistent. A matrix norm ‖ ⋅ ‖ {\displaystyle \|\cdot \|} iK m × n {\displaystyle K^{m\times n}} is called *consistent* with a vector norm on **K**m K m {\displaystyle K^{m}} if ||Ax ||a ≤ ||A|| ||x||a. The Frobenius norm is an example of a consistant norm, as well as the operator norm and the *p* matrix norm.

Sources used.

http://mathworld.wolfram.com/FrobeniusNorm.html

<https://en.wikipedia.org/wiki/Matrix_norm#Frobenius_norm>

<https://www.uio.no/studier/emner/matnat/ifi/nedlagte-emner/INF-MAT3350/h07/undervisningsmateriale/chap13slides.pdf>