

Creating matrices

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Latex doesn't have a specific matrix command to use. It instead has a slightly more generalised environment called array. The array environment is basically is similar, but simpler version of the tabular environment. Arrays are very flexible, and can be used for many purposes, but we shall focus on matrices. You can use the array to arrange and align your data as you want, and then enclose it with appropriate left and right brackets, and this will give you your matrix. For a simple 2x2 matrix:

$$\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

A more general matrix (with round brackets this time!):

$$\begin{pmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{pmatrix}$$