1 This is an Example of the multicol Package

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I think that I would like to put a regular paragraph at the top of my page, then see how the multiple-column environment works in LaTeX2ϵ.

Here is some text and some math in three columns

I would really like to put math in little tiny columns just to see how it breaks the lines.

$$|p(z)| = \left| z^n \sum_{k=0}^{n} a_k z^{k-n} \right|$$

And some text to fill out this short column.

And then some more text. Let's see now. Hey, what will it do to a an equation that is just way too big to fit in these tiny columns?

$$\pi(n) = \sum_{m=2}^{n} \left\lfloor \left(\sum_{k=1}^{m-1} \lfloor (m/k)/\lceil m/k \rceil \rfloor \right)^{-1} \right\rfloor .$$

It just spreads it across the two right-hand columns, which is exactly what I would expect. Isn't that nice?

Now I can just switch back into the full page mode, and insert some floats. And then switch back into two-columns. (Column floats and `\marginpars` are not supported in the multicol environment.)

Now, for some two-column stuff (this is the *preface* argument of the multicols command)[1]

With larger equations like the matrix below, it is probably best to leave the multicols environment, especially if you want it in an equation environment with an equation number in the margin. The equation environments will work in multicolumn environments, but the equations may look better going all the way across the page.

$$\begin{pmatrix} \begin{pmatrix} \begin{pmatrix} a & b \\ c & d \end{pmatrix} & \begin{pmatrix} e & f \\ g & h \end{pmatrix} \\ 0 & \begin{pmatrix} i & j \\ k & l \end{pmatrix} \end{pmatrix} & \begin{pmatrix} \begin{pmatrix} a & b \\ c & d \end{pmatrix} & \begin{pmatrix} e & f \\ g & h \end{pmatrix} \\ 0 & \begin{pmatrix} i & j \\ k & l \end{pmatrix} \end{pmatrix} \\ \begin{pmatrix} \begin{pmatrix} a & b \\ c & d \end{pmatrix} & \begin{pmatrix} e & f \\ g & h \end{pmatrix} \\ 0 & \begin{pmatrix} i & j \\ k & l \end{pmatrix} \end{pmatrix} & \begin{pmatrix} \begin{pmatrix} a & b \\ c & d \end{pmatrix} & \begin{pmatrix} e & f \\ g & h \end{pmatrix} \\ 0 & \begin{pmatrix} i & j \\ k & l \end{pmatrix} \end{pmatrix} \end{pmatrix} \tag{1}$$

[1] The footnotes go across the whole page, but the package ftright will place them in only the right hand column