Fit is a front-end to *Mathematica's* least-squares fitting routine.

There are four main windows in the program. They all appear in the Tools menu. The titles of these windows are *Data*, *Polynomial Fit*, *Graphs* and *Approximating Polynomial*.

Data holds a matrix into which data will be typed or displayed.
Polynomial Fit is the main control window.
Graphs is where the data will be plotted where the approximating function will be graphed.
Approximating Polynomial is where the approximating polynomial will be displayed.

Data can be entered directly into the matrix in *Data*. Alternatively, you can store data in a ascii file having the extension *data*. The first item in the data file must be the number of pairs (points), followed by the data points. A sample data file *Sine.data* is included. Choosing **Open** from the **File** menu will bring up a panel from which you can select the data file, and then the data will be loaded into the matrix in *Data*.

Polynomial Fit allows you to specify the degree of the polynomial which will

be fit to the data.   It also contains the controls which cause the approximating function to be computed, the data to be plotted (as points or connected by lines), the approximation to be graphed, and the data and approximation to be displayed at the same time.

The graphs will be displayed in *Graphs*.   *Graphs* can be sized to a larger size, but cannot be reduced smaller than its original size.

The approximating polynomial will be displayed in *Approximating Polynomial.*