Lab 1

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September 9, 2021

0.1 Equations

It has very powerful support for equations such as these:

$$f(x) = e^{1/2-\sin(5\pi x)}, \tag{1}$$

$$p(x) = 1 + x + x^2. \tag{2}$$

0.2 Referencing

LaTeXalso supports a very convenient labeling and referencing system through the command
`label` and
`ref`. Above, equation (2) is a polynomial and the function described by equation (1) is plotted in Figure 1.

Note that you may have to compile the document two times to get all the cross-referencing between labels and suto work correctly.

0.3 Figures

Figures are also easy to incorporate. It is often best to use a figure format that is based on vector graphics, e.g. Encapsulated PostScript (eps). PNG is another good format. An example is given in Figure 1.

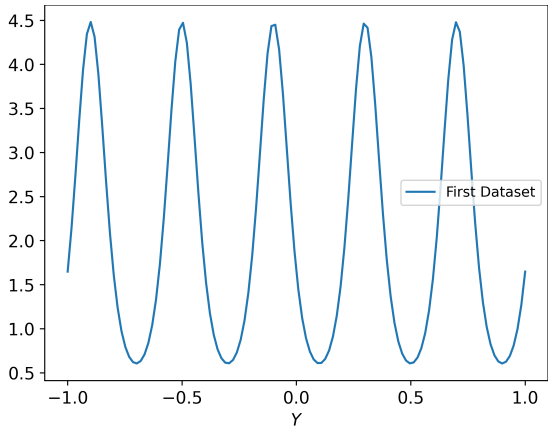

Figure 1: This figure displays the function $f(x) = e^{1/2-\sin(5\pi x)}$.

0.4 Tables

Tables are often useful to display data more compactly than figures.

1.25000e+00	2.50000e-01
1.02500e+00	2.50000e-02
1.00030e+00	3.04878e-04
1.00000e+00	4.64611e-08
1.00000e+00	1.11022e-15
1.00000e+00	0.00000e+00
1.00000e+00	0.00000e+00
1.00000e+00	0.00000e+00
1.00000e+00	0.00000e+00
1.00000e+00	0.00000e+00

Table 1: A table of delicious meals.

0.5 Newton Convergence Data

Here, we import automatically data from our Newton convergence study of $f(x) = x^2 - 1$.