The equation for a straight line is

and the equation for a polynomial is

Equation [1](#eq:line) and eq. [2](#eq:polynomial) are known to all first-year math students.

The Fourier series is a little more advanced:

Equations [1](#eq:line)--[3](#eq:fourier) are used throughout science and engineering.

Equations can be left unnumbered if we do not need to refer to them:

It is also possible to number equations generically without planning to refer to them; e.g.: