Complex number

Complex numbers consist of a real number plus an imaginary number, so can be written as $x + iy$.

We can visualise imaginary numbers as lying along a number line like the ordinary real number line, but at right angles to it. These two number lines together form a plane called the *complex plane* or the *Argand diagram*, and the complex number $x + iy$ will lie at the point (x, y) on this plane.

Every polynomial with real (or even complex) coefficients has a root in the complex numbers, which makes complex numbers a very powerful mathematical concept.