



Why¹

Definition

A *complex rational function* (or *rational function*, or *fractional function*) in \mathbf{C} is a function $f : \mathbf{C} \rightarrow \mathbf{C}$ for which there exists polynomials $p : \mathbf{C} \rightarrow \mathbf{C}$ and $q : \mathbf{C} \rightarrow \mathbf{C}$ in \mathbf{C} so that

$$f(z) = \frac{p(z)}{q(z)},$$

for all $z \in \mathbf{C}$. In other words, a rational function is a “quotient” (see Complex Products) of two polynomials in \mathbf{C} .

¹Future editions will include.

