



Why

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Definition

A function $f : \mathbf{C} \rightarrow \mathbf{C}$ is *holomorphic* at the point $z \in \mathbf{C}$ if the limit

$$\lim_{h \rightarrow 0} \frac{f(z+h) - f(z)}{h}$$

exists, where $h \in \mathbf{C}$. This condition is similar to saying that a function is differentiable, except that the h is complex and so the condition above encompasses all limits approaching z (all angles) in the complex plane.²

¹Future notes will expand.

²Future editions will clarify.

