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region

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A *region* is a nonempty open subset of \mathbb{C} . Note that this definition is a of that of <http://planetmath.org/Domain2domain> (as defined in complex analysis) to the complex plane. Some people prefer to use “region” instead of “domain” to avoid confusion with other mathematical definitions of domain. (The set theoretic definition of <http://planetmath.org/Domaindomain> is also used in complex analysis.)

Regions play a major role in complex analysis since every nonempty open subset of \mathbb{C} is the union of countably many connected components, each of which is a region.