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pro-*p* group

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Definition. Let p be a prime number. A group G is a pro- p group if G is a profinite group which is isomorphic to the inverse limit of some projective system of <http://planetmath.org/PGroup4p-groups>.

Example. The <http://planetmath.org/PAdicIntegers> p -adic integers \mathbb{Z}_p form a pro- p group since:

$$\mathbb{Z}_p = \varprojlim \mathbb{Z}/p^n\mathbb{Z}.$$