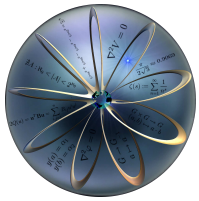

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divisible group

Canonical name	DivisibleGroup
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An abelian group D is said to be divisible if for any $x \in D$, $n \in \mathbb{Z}^+$, there exists an element $x' \in D$ such that $nx' = x$.

Some noteworthy facts:

- An abelian group is `http://planetmath.org/InjectiveModule`injective (as a $\mathbb{Z}$-module) if and only if it is divisible.
- Every group is isomorphic to a subgroup of a divisible group.
- Any divisible abelian group is isomorphic to the direct sum of its torsion subgroup and n copies of the group of rationals (for some cardinal number n).