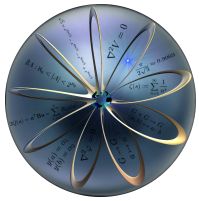

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Cantor normal form

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Ordinal Normal Form (Cantor)**.** *For ordinal numbers* $\alpha \geq 2$ *and* $\gamma \geq 1$ *there is a unique* n *such that there exist unique* $\beta_0 > \cdots > \beta_n$ *and* $0 < \delta_0 < \alpha, \ldots, 0 < \delta_n < \alpha$ *such that* $\gamma = \alpha^{\beta_0} \cdot \delta_0 + \cdots + \alpha^{\beta_n} \cdot \delta_n$.

This theorem is often referred to as the *Cantor Normal Form of* γ *in the base of* α.