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SOME CHARACTERIZATIONS OF THE EXPONENTIAL DISTRIBUTION FUNCTION

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Abstract: Let X be a nonnegative random variable and let [x] denote the integer part of x. The main result of the paper is the following characterization: X is exponentially distributed iff $[\alpha X]$ and $\alpha X - [\alpha X]$ are mutually independent for every $\alpha > 0$. Some modifications of this theorem are also considered.

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