

Yet Another Probabilistic Proof
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page 1

Theorem. $\lim_{n \rightarrow \infty} ((n-1)n/2)^{1/n} = 0$.

Proof: $((n-1)n/2)^{1/n} = (n!/(2!(n-2)!))^{1/n} = C(n,2)^{1/n}$ = the probability that randomly picking 2 cards, with replacement, from a deck of n cards will not result in the same 2 cards being picked, and this probability obviously goes to 0 as n goes to infinity.

Note: n^x means x raised to the power n.

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