GENERALIZATION OF JOHN SMITH'S PROBLEM, BETTER KNOWN AS PEPYS-NEWTON PROBLEM

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Abstract. A generalization of Adam Smith's problem, better known as the Pepys-Newton problem, is considered. The case of a generalized die with an arbitrary number of sides n is considered. The formulas for probability are derived, calculations are made for small values of n. A proof is given using the Central Limit Theorem that the limiting probability is $\frac{1}{2}$.

Key words: Bernoulli Scheme, Central Limit Theorem.

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