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THE QUINTESSENTIAL NUMBER 24

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Abstract: In this article, the authors refer to the interesting nature and properties of the number 24 and its occurrence and relevance in different contexts and conjecture that it is the *raison d'être* for its occurrence in the definition of the τ -function of Ramanujan.

Keywords and Phrases: Aryabhatia, Ashoka chakra, cube, fundamental theorem of Algebra, Gayatri mantra, Greek alphabet, Hardy-Ramanujan theorem, Highly Composite Numbers, hypergeometric functions, Kummer solutions of Gauss ODE, prime numbers, Surya Sidhanta, symmetries, tau-function, tetrahedral symmetries.

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1. Introduction

One should ask why the number of hours in a day is 24? The answer to this question requires an understanding of the *Surya Sidhanta* of the late 4th or early 5th