# Moonshine Elliptical

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## Consider the Following

A five factor representation from the special values of the functions below found through the **j-invariant** in the study of modular forms as applied to elliptic curves over fields of any character.

$$E_4(\tau) = 1 + 240 \sum_{n=1}^{\infty} \frac{n^3 q^n}{1-q^n}$$

$$E_6(\tau) = 1 - 504 \sum_{n=1}^{\infty} \frac{n^5 q^n}{1-q^n}$$

The special value of $\mathbf{E_0}$ considered occurring at the zeta pole and so produces a zero. It should be considered although unity to represent and number of multiples of the unit element when seen as a reduction degeneracy which may have other properties due to the actual power index of the unit identity.

$$\begin{aligned} E_{2k}(\tau) &= \frac{G_{2k}(\tau)}{2\zeta(2k)} \\ &= 1 + \frac{2}{\zeta(1-2k)} \sum_{n=1}^{\infty} \frac{n^{2k-1} q^n}{1-q^n} \\ &= 1 - \frac{4k}{B_{2k}} \sum_{n=1}^{\infty} \sigma_{2k-1}(n) q^n \\ &= 1 - \frac{4k}{B_{2k}} \sum_{d,n \geq 1} n^{2k-1} q^{nd}. \end{aligned}$$

As present in the j-invariant and **Hardy Ramanujan Nnumber 1729** for some real magic of **7*13*19 = (13-2*3)*13*(13+2*3)**. There goes one for dreamers.

$$j(\tau) = 1728 \frac{E_4(\tau)^3}{E_4(\tau)^3 - E_6(\tau)^2}$$

As per Wikipedia and the relevant quotes and references, with **q** representing the Nome.

$$[0, 240, -504]_L \otimes [0, 240, -504]_R \otimes \sqrt[4]{1} \otimes \sqrt[3]{1} \otimes [0_M, 240_{T_2}, -504_{\bar{T}_3}]$$

Given degeneracy of some of the powers of the roots, and the non-commutative product between **L** and **R** (which gives 9 combinations in and of itself. The roots provide an 18n+18 pattern when combined with $\mathbf{0_M}$ for representing the **List_of_finite_simple_groups (**18n) and 18 of **Sporadic_group** within the happy monster not including the pariah groups and 2 of the others. This leaves **-503 subscript bar** $\mathbf{T_3}$ to produce within it the character 2 groups of the pariahs from Muzar's Theorem as the **2*[(2, 4, 6, 8) + (10, 12)]** hex-tuple and **240 subscript** $\mathbf{T_2}$ to produce the **3*(3, 9)** pair. For the totalling **18n+18+2+6 = 18n+26**.

# A Five Fold Way

The conjecture that a combination of five things are involved in defining the behaviour of any elliptical curve and the property connection with **Journal of Number Theory 121 (2006) 30–39, The class-number one problem for some real cubic number fields with negative discriminants** by **Stéphane R. Louboutin** (Spoiler alert. There are 42) with some count of discriminant congruence to 3 for some extra points.

If two of the products are considered degenerate in another way as the circle and ellipse devoid of cubic torsion these can total to 44 in an abstract sense. The particular choice of which **T** number was bar? A simple enough Muzar's of **4*4** and a missing **17**. A possible **p-1** relation and the factors of **240 = 16*17 = 2*2*2*2*3*5** while **-504 = -1*2*2*2*3*3*7** has an eight and a nine but 9 is not prime.

And of the future? And of the music.

$$\sqrt[12]{2}$$