

That Old Black Magic

$$1 = F$$

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Diagram illustrating the decomposition of the number 10 into powers of 2 and 5. The number 10 is represented as a sum of powers of 2 (2³ + 2² + 2¹ + 2⁰) and powers of 5 (5¹ + 5⁰). The powers of 2 are shown as a sequence of 10s, and the powers of 5 are shown as a sequence of 5s. The diagram is divided into four sections by vertical lines, with the first section containing the powers of 2 and the second section containing the powers of 5. The third and fourth sections are empty.

The diagram illustrates the decomposition of the tensor product of two irreducible representations of the Lie algebra $\mathfrak{so}(8)$. The decomposition is shown as four vertical lines, each representing an irreducible component. The components are labeled with their dimensions: 2^{-7} , 5^7 , 2^{-7} , and 5^7 . The components are represented by horizontal bars of different colors (blue, green, red, and blue) and are arranged in a way that shows their relative positions and dimensions.

The diagram illustrates the evolution of a sequence over time, divided into four stages by vertical lines. The sequence is represented by horizontal bars, where the length of the bar indicates the number of elements and the color indicates the value (blue for 6, yellow for 5).

- Stage 1:** The sequence starts with three 6s. The label 2^{-7} is at the bottom left.
- Stage 2:** The sequence evolves to contain two 6s and one 5. The label 5^7 is at the bottom left.
- Stage 3:** The sequence evolves to contain three 6s. The label 3^{-7} is at the bottom left, and 6^7 is at the bottom right.
- Stage 4:** The sequence evolves to contain one 6 and one 5. The label 2^{-7} is at the bottom left, and 5^7 is at the bottom right.

Diagram illustrating the decomposition of the 7th power of the standard representation of $SU(3)$ into irreducible representations. The diagram shows a horizontal bar divided into segments by vertical lines. The segments are labeled with numbers 3, 3, 3, 4, 5, 7, 3, 3, 3, and 5. The label 1^47 is at the bottom left, and b_7 is above the segment labeled 7.

The diagram illustrates two horizontal timelines. The left timeline consists of six segments with labels 3, 3, 3, 4, 5, and 1. The right timeline consists of four segments with labels 2, 2, 2, and 1. A vertical line separates the two timelines, and a label b_7^7 is placed below the right timeline.



