



Figura 1: Source Wikipedia

Doubt: Geometric Interpretation

What is the geometric interpretation of the binomial theorem?

From the sum of two quantities a and b , we can build a line segment of length $a + b$. We can also expand this line segment into a square in two dimensions, a cube in three, or an hypercube in more than three. The Binomial Theorem shows how we can decompose any hypercube of n dimensions into smaller shapes, cuboids, whose sides can be expressed in terms of a and b .

Doubt

How is it related with $x^n - y^n$?