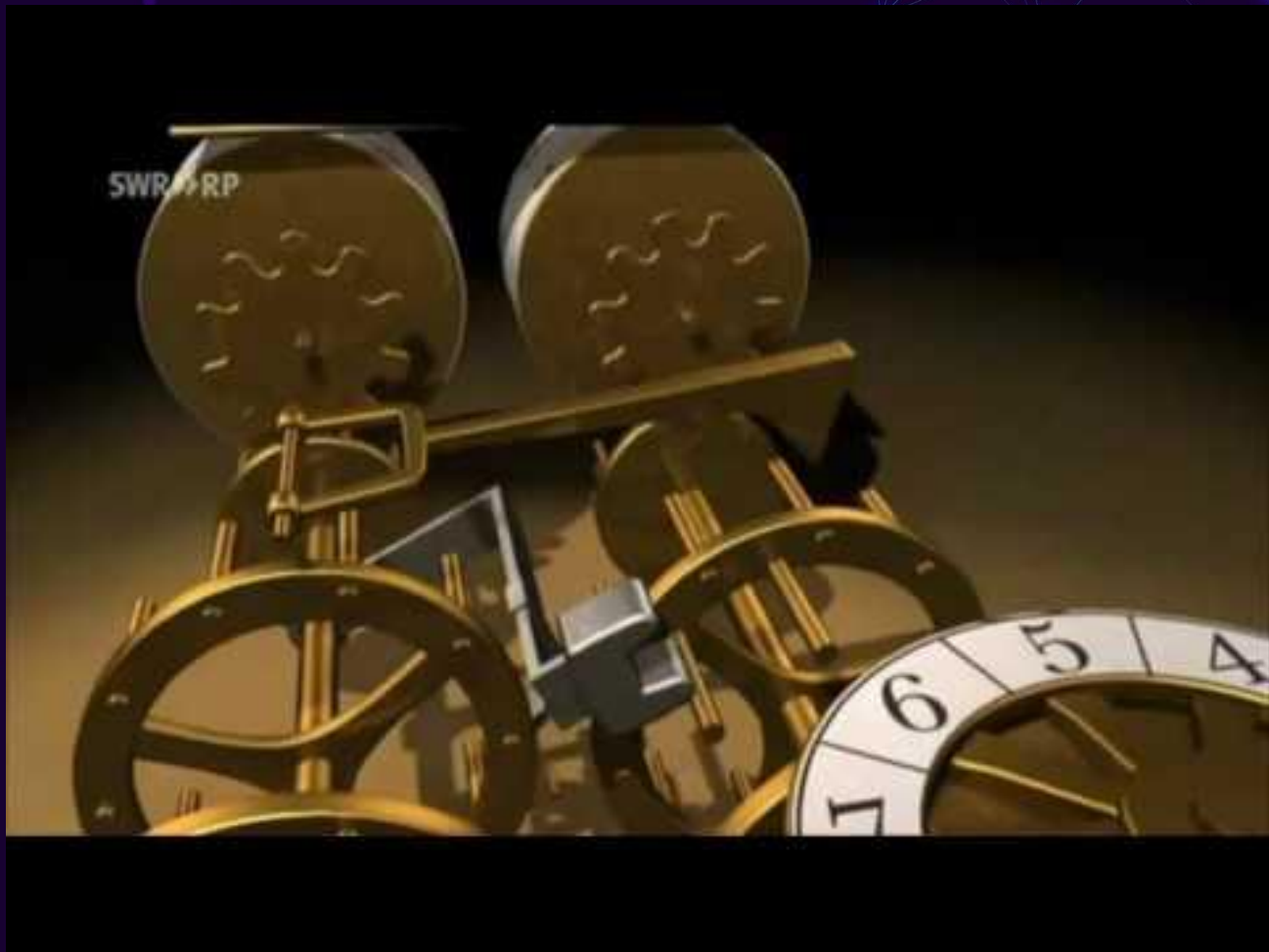


Pascal (1623-1662)



Pascalina



Niccolo Tartaglia

1

1 1

1 2 1

$(x+y)^3$ 1 3 3 1

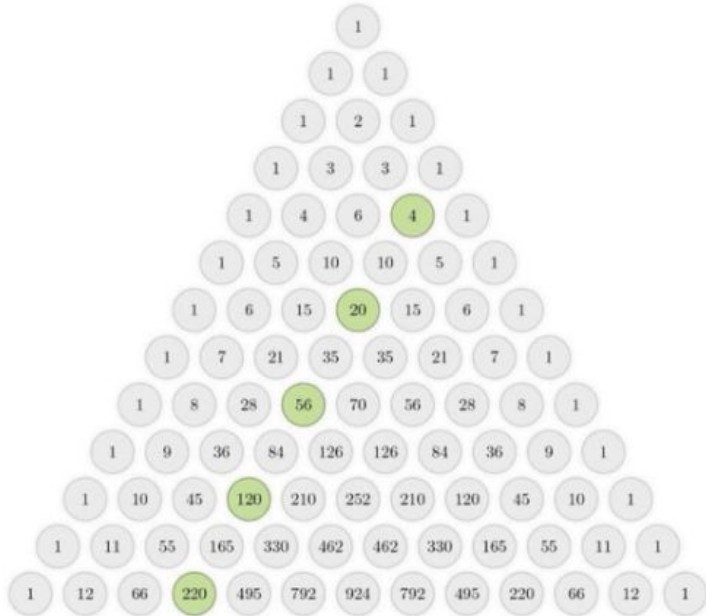
$(x+y)^4$ 1 4 6 4 1 *Blaise*

1 5 10 10 5 1 *Pascal*

$(x+y)^4 = x^4 + 4x^3y + 6x^2y^2 + \dots$

The diagram illustrates the construction of Pascal's Triangle. It shows the first five rows of the triangle, with the fourth row highlighted in blue. The binomial expansion for $(x+y)^4$ is shown below the triangle, with arrows pointing from the coefficients 1, 4, 6, 4, 1 in the fourth row to the corresponding terms in the expansion. The names of the mathematicians associated with the triangle are written next to their respective rows: Niccolo Tartaglia for the first row, Blaise Pascal for the fourth row, and Pascal for the fifth row. A portrait of Niccolo Tartaglia is on the left, and a portrait of Blaise Pascal is on the right. The background is a textured parchment-like surface.

π



$$\pi = 3 + \frac{2}{3} \cdot \left(\frac{1}{4} - \frac{1}{20} + \frac{1}{56} - \frac{1}{120} + \frac{1}{220} - \dots \right)$$