

Today in Math History...

-7 September 1707

Georges-Louis Leclerc, Comte de Buffon born. Buffon's needle experiment uses probability to estimate pi. He introduced calculus into probability theory.



Buffon's needle experiment.

Suppose a needle is thrown at random on a floor marked with equidistant parallel lines. What is the probability that the needle will land on one of the lines?

$$\text{Average}(\sin \theta) = \lim \frac{2r_n}{n/2} = \lim \frac{c_n/\pi}{n/2} = \frac{2}{\pi} \lim \frac{c_n}{n} = \frac{2}{\pi}$$