

Chelsea Oden

Senior Division Mathematics & Computer Sciences

The Probability Of Me

If anyone has ever told you that you are "one in a million," they probably had good intentions, but, fortunately, they lied. Just how unique are you? How unique am I? This is the purpose of my endeavor, to create and solve an equation that would allow me to estimate the probability that I would have ever been born and lived to be my current age beginning from various points in time. I began by developing an equation that accounts for the probability of the universe existing, the probability of intelligent life evolving in that universe (this variable is modeled after the Drake equation), the probability of the survival of an individual to reproductive age, the probability of two specific people of opposite gender meeting at a given time, the probability of that couple being fertile, the probability of a specific egg and sperm combining with unique genetic information, and, finally, the probability of that zygote living through birth, and surviving to become eighteen years of age. In my final calculations, the probability of my existence was so small that it appears Microsoft Excel was unable to process the data until a starting point of just two generations ago. At this point, the average probability of my existence was 3.189×10^{-262} . A single generation ago, the estimated probability was 2.04674×10^{-92} . This incredibly small number indicates just how truly unique each of us is.