

[nex82] Coincident birthdays

- (a) In a group of n children whose birthdays are uniformly distributed throughout a year of 365 days, what is the probability $P(n)$ that at least two kids have their birthday on the same day?
- (b) What is the minimum size of the group for which that probability exceeds 10%, 50%, 90%?
- (c) For what value of n does the probability for no coincident birthdays drop below one part in a million?
- (d) Plot $P(N)$ versus n for $n = 1, \dots, 100$.

Solution: