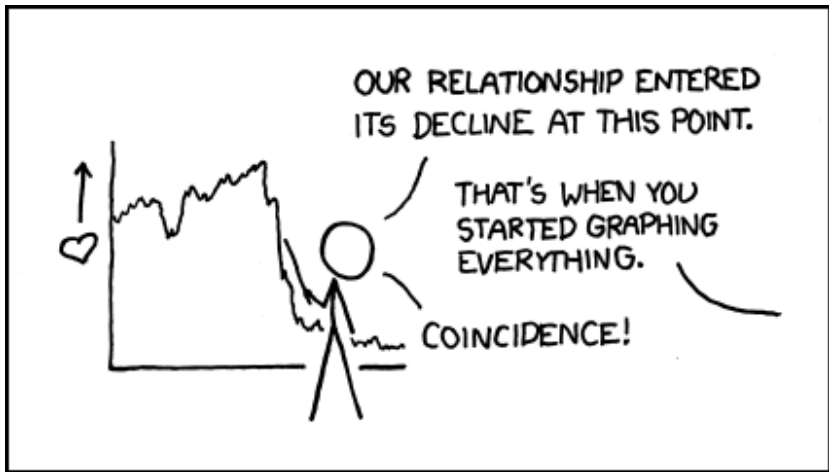


Birthday Matches  
18.05 Spring 2014  
Jeremy Orloff and Jonathan Bloom



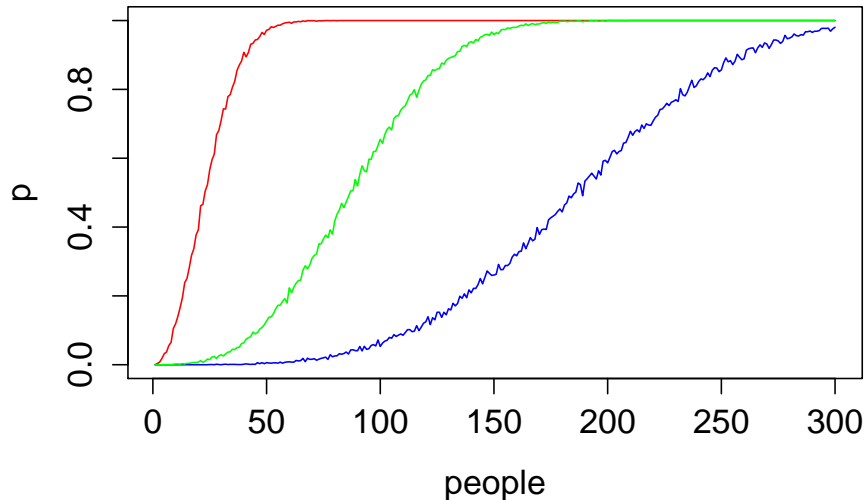
Courtesy of [xkcd](#). CC-BY-NC.

## Birthday Matches

There are  $n$  people gathered in a room. What is the probability that at least 2 of them will have the same birthday?

- Use an R simulation to estimate this for various  $n$ .
- Find the smallest value of  $n$  for which the probability of a match is greater than .5.
- Explore how the number of trials in the simulation affects the variability of our estimates.

At least 2, 3, or 4 people match



## Here's Johnny

### Johnny Carson attempt 1

[http://www.cornell.edu/video/  
the-tonight-show-with-johnny-carson-feb-6-1980-excerpt](http://www.cornell.edu/video/the-tonight-show-with-johnny-carson-feb-6-1980-excerpt)

### Attempt 2 after getting hate mail from mathematicians

[http://www.cornell.edu/video/  
the-tonight-show-with-johnny-carson-feb-7-1980-excerpt](http://www.cornell.edu/video/the-tonight-show-with-johnny-carson-feb-7-1980-excerpt)

Attemp 3 [http://www.cornell.edu/video/  
the-tonight-show-with-johnny-carson-feb-8-1980-excerpt](http://www.cornell.edu/video/the-tonight-show-with-johnny-carson-feb-8-1980-excerpt)

Here is the full NY Times article

[http://opinionator.blogs.nytimes.com/2012/10/01/  
its-my-birthday-too-yeah/](http://opinionator.blogs.nytimes.com/2012/10/01/its-my-birthday-too-yeah/)

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## 18.05 Introduction to Probability and Statistics

Spring 2014

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