

We've recently made an accessibility improvement to the community and therefore posts without any content are no longer allowed. Please use the spoiler feature or add a short message in the message body in order to submit your weekly challenge.

2022-05-26 Updates: Email: If you're not seeing emails be delivered from the Community, please check your spam and mark the Community emails as not junk. Thank you for your patience.



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## Weekly Challenge

Solve the challenge, share your solution and summit the ranks of our Community!

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### IDEAS WANTED

We're actively looking for ideas on how to improve Weekly Challenges and would love to hear what you think!

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[Weekly Challenge](#)

## Challenge #140: Prove the Birthday Paradox!

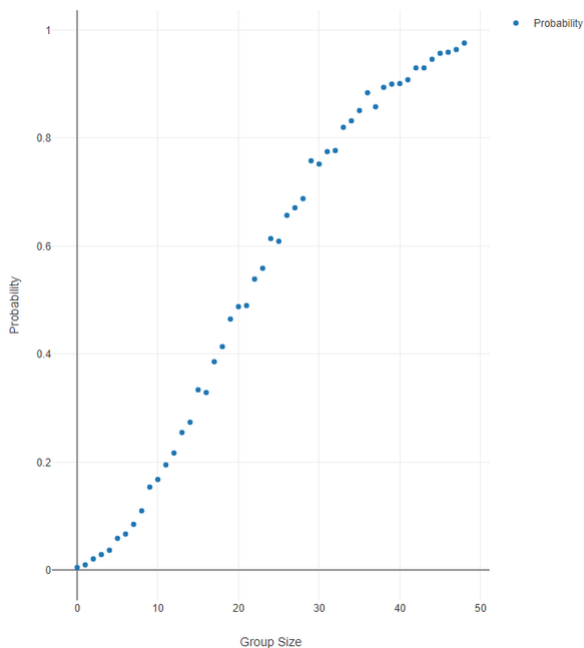


JoeM  
Alteryx Alumni (Retired)

This week we will run an anecdotal workflow to prove the [Birthday Paradox](#)! The Birthday paradox simply refers to the phenomenon that if you assembled 23 people into one room, the chances of two people having the same birthday are 50-50. We could 'math' this out, but why not just assemble 100s of thousands of people in the seconds to prove it?

In this challenge, your goal is to build a table that increment group sizes from 2 people all the way to 50 people. In each of those group sizes, run 1000 random trials and see what percent of groups had at least one set of people match. Why 1000? Theoretically, the more trials you run, the more likely you are to get a refined percent (e.g. flipping a coin four times may not be a perfect 50-50 chance where it would be much closer after 1000 flips).

Due to the nature of this challenge, you will need to generate your own data! I have provided a sample output of mine, but since we are randomly assigning birthdays, you may find small differences in our answers. At what group size did it exceed 75% chance? 90% chance?



Looking to try the new interactive chart tool too?

[challenge\\_140\\_start\\_file.yxmd](#)

Data Analysis Data Preparation Intermediate Preparation Transform

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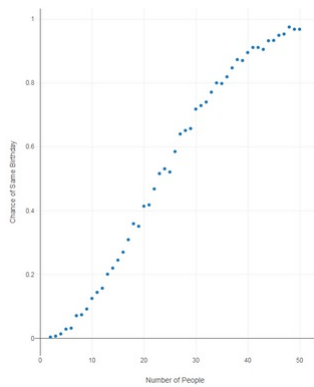
bdaniels  
8 - Asteroid

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Workflow:

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**patrick\_digan**  
17 - Castor

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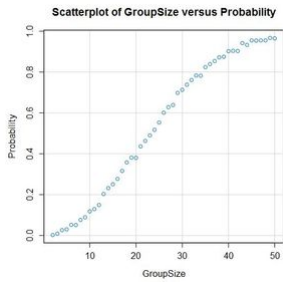
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**cgoodman3**  
13 - Pulsar

Started off with an iterative macro but just ended up with a brute force method.

▷ Spoiler



Chris  
Check out my collaboration with fellow ACE Joshua Burkhaw at [AlterTricks.com](#)

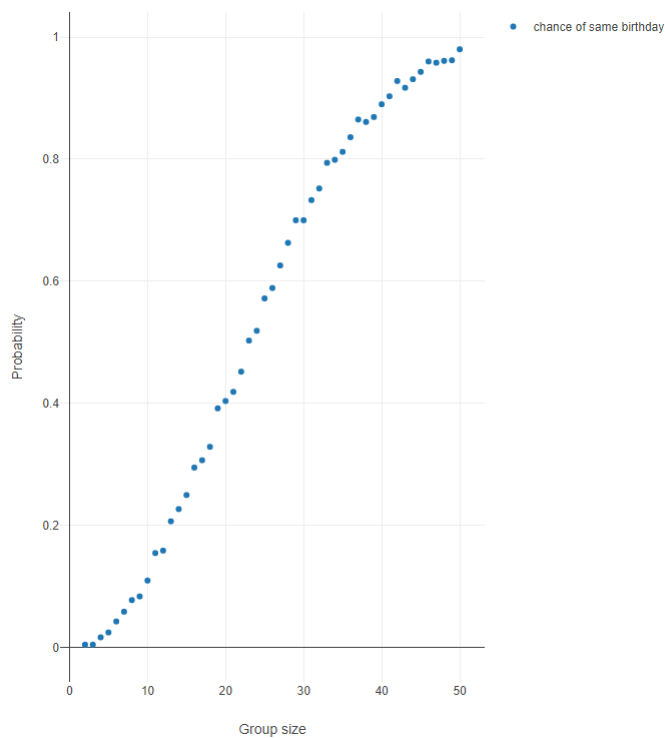
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**kat**  
12 - Quasar



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 Challenge #140.yxzp 



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 **jasperIch**  
12 - Quasar

Solution attached.

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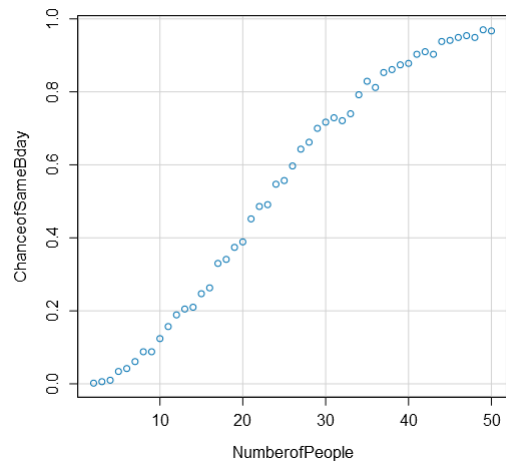
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 **GarthG**  
7 - Meteor


Happy birthday to someone on here!

Scatterplot of NumberofPeople versus ChanceofSameBc



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 **CHarrison**  
8 - Asteroid

» Spoiler



Studied this one as part of my degree :D

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 **JoBen**  
11 - Bolide



Cheers! That was a lot of fun!

» Spoiler

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 **sprodger**  
8 - Asteroid

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