

Re: Birthday problem for such non-uniform birthday probabilities

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-11/msg03066.html>

- *From:* "David M Einstein" <Deinst@xxxxxxxx>
 - *Date:* 21 Nov 2005 07:22:20 -0800
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Doug wrote:

> "Helmut Zeisel" <helmut.zeisel@xxxxxx> wrote in message
> news:dls5fv.5lg.1@xxxxxxxxxxxxxxxxxxxx
>> Consider the birthday problem:
>>
>> There are n randomly chosen person in a room. What is the probability
>> that there exist k persons who have birthday on the same day.
>>
>> I know how to compute the probability assuming a uniform birthday
>> distribution.
>>
>> It is reasonable that this probability increases for a non-uniform
>> birthday distribution.
>>
>> Where can I find a proof for this result?

Blom, D. (1973), "A birthday problem", American Mathematical Monthly,
vol. 80, pp. 1141-1142

>>
>> Helmut
>
> You won't, as it is also reasonable that this probability decreases for a
> non-uniform
> distribution.
>
> You need to specify the "non-uniform" distributions to determine if it
> increases/decreases.

I would be very interested in seeing a distribution that decreases the
probability of
a match.

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Re: Birthday problem for such non-uniform birthday probabilities

- *Follow-Ups:*

- ◆ *Re: Birthday problem for such non-uniform birthday probabilities*
 - ◇ *From:* Robert Israel
- ◆ *Re: Birthday problem for such non-uniform birthday probabilities*
 - ◇ *From:* Doug

- *References:*

- ◆ *Birthday problem for such non-uniform birthday probabilities*
 - ◇ *From:* Helmut Zeisel
- ◆ *Re: Birthday problem for such non-uniform birthday probabilities*
 - ◇ *From:* Doug

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