

Re: Birthday Problem

Source: <http://coding.derkeiler.com/Archive/C/ CPP/comp.lang.cpp/2004-04/2160.html>

From: Gary Labowitz (glabowitz_at_comcast.net)

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Date: Mon, 12 Apr 2004 22:50:54 -0400

"Sandra" <s.cantrell@mindspring.com> wrote in message
news:407b2637.5311140@news.east.earthlink.net...
> *On Mon, 12 Apr 2004 23:21:26 GMT, alfps@start.no (Alf P. Steinbach)*
> *wrote:*
>
>
>>
>> *Well, it seems your work is cut out for you, unless the context of*
the
>> *problem formulation is such that it really means something more*
than stated.
>>
>> *All your program has to do is to ask you whether your birthday is*
February
>> *29th, and then apply the formula inconsiderately given you by*
Robert
>> *E. Tisdale and at least one more poster. The program could output*
one
>> *result based on the current year or on assuming a non leap-year, or*
it could
>> *output two result, one for non-leap and one for leap-year. In the*
latter case
>> *the formula should be suitably modified for leap year. Of course*
it could
>> *also output four results, one for each combination of February 29th*
or not and
>> *leap year or not. That way you could avoid the input part.*
>>
>> *Also, it might be possible to avoid the leap year thing by*
analyzing whether
>> *it can affect the result or not.*
>>
>> --
>> *A: Because it messes up the order in which people normally read*
text.
>> *Q: Why is top-posting such a bad thing?*
>> *A: Top-posting.*

comp.lang.c++: Re: Birthday Problem

> >Q: *What is the most annoying thing on usenet and in e-mail?*
>
>
> *Thanks Alf – I am working on an encryption\decryption program right
> now so I think I am going to let this one go. I really am stuck :)*
>
> *He is going to give us the answer on Wed – Do you want to see what
he
> comes up with ?*

You bet. Especially since you cannot know, without some distribution information, how many people it will take to find your birthday. If you were born on 1-1 and asked people as they got off the subway if anyone was born on 1-1 there is no telling how many people you would ask before one of them was born on 1-1. It's not the pigeon hole principle here. You might go through 1,000,000 people until one was born on 1-1. There is just no way of telling. If, on the other hand, you were asking people what their birthdates were and kept track of the answers, you might be surprised to find that after the first 20 you will have a 50-50 chance of finding two of them with the same birthday. But it is a different problem.

I think your teacher is on a wrong track.

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Gary (who was a math major, but not really very good at statistics)