

In March 2014, Barack Obama, then President of the United States of America, visited the Netherlands in order to take part in the Nuclear Security Summit that was held in The Hague and of course it was hosted by Mark Rutte, Prime Minister of The Netherlands

On the first day of the summit there also were municipal elections in The Netherlands. During lunch, Mark Rutte of course shared a table with Barack Obama and what else could they be talking about but the elections?

At the same table some Chinese emissary had taken a seat and Obama, being diplomatic and socially skilled, involved him in the conversation by asking: *Do you have elections too?*, whereupon the Chinese answered: *Yes, mistel president, evely molning...*

Suppose there is some club where a new president is to be elected.

(Mom, how do lions make love? I don't know, all your father's friends are Rotarians.)

There are 19 voters who express their preferences of candidates {A,B,C} as follows:

voter	1 st choice	2 nd choice	3 rd choice
1	A	C	B
2	A	C	B
3	B	C	A
4	C	B	A
5	A	C	B
6	A	C	B
7	A	C	B
8	B	C	A
9	B	C	A
10	A	C	B
11	B	C	A
12	B	C	A
13	A	B	C
14	B	A	C
15	A	C	B
16	C	B	A
17	C	B	A
18	C	B	A
19	B	C	A
resulting in:	8×A, 7×B, 4×C	1×A, 5×B, 13×C	10×A, 7×B, 2×C

Who should become the new president?

As 1st choice, A clearly won, but more than half of the voters considered him the worst candidate! As 1st choice he beats B by just 1 vote, whilst as 3rd choice he has 3 more than B. A and B are the top two as both the first and the last choice. Let's try some method to calculate penalty points:

A:	8×1	+ 1×2	+ 10×3	= 40	
B:	7×1	+ 5×2	+ 7×3	= 38	less penalty than A
C:	4×1	+ 13×2	+ 2×3	= 36	even less

A vast majority considered C the 2nd choice, but shouldn't he win?