

Brian's Puzzle of the Week: 9

The mathematician Dr Aleph met the King of Flatland:

“How are things?” asked Dr Aleph.

“Terrible! There was a revolution and I was exiled with 65 of my supporters. We all get the same salary: 1 delta per week. And everyone gets to vote at the weekly meetings, except me. I don't even get a vote!”

“Do you have any power at all?”

“All I can do at the weekly meetings is to propose a change in the distribution of the 66 deltas.

For example, I could propose that I get 6 deltas, my friends Belinda and Sarah each get 30 deltas and nobody else gets anything. Then there is a vote.

- The people whose salary would increase always vote *Yes*.
- The people whose salary would decrease always vote *No*.
- The people whose salary wouldn't change don't vote.

So that proposal would be defeated 63 to 2.
(Remember, I don't get a vote).”

“What would it take for one of your proposals to pass?”

“It has never happened. For it to happen, there have to be more *Yes* votes than *No* votes.”

Dr Aleph realised that the King could make a series of proposals that would result in a significant salary increase for him, at the expense of most of his supporters.



*What is the King's maximum possible salary?
How quickly can he obtain it?*