



The game continues.



Players continue to query the input oracle and try to compute the value of given Boolean function.



Fake Akagi's game is in poor shape.



He continues to query the oracle, but is unable to get useful information about f.



His queries miss the mark!



This function has lower bound $\Omega(n)$



... so it's unlikely that fake Akagi will win fast.



This man is no good.



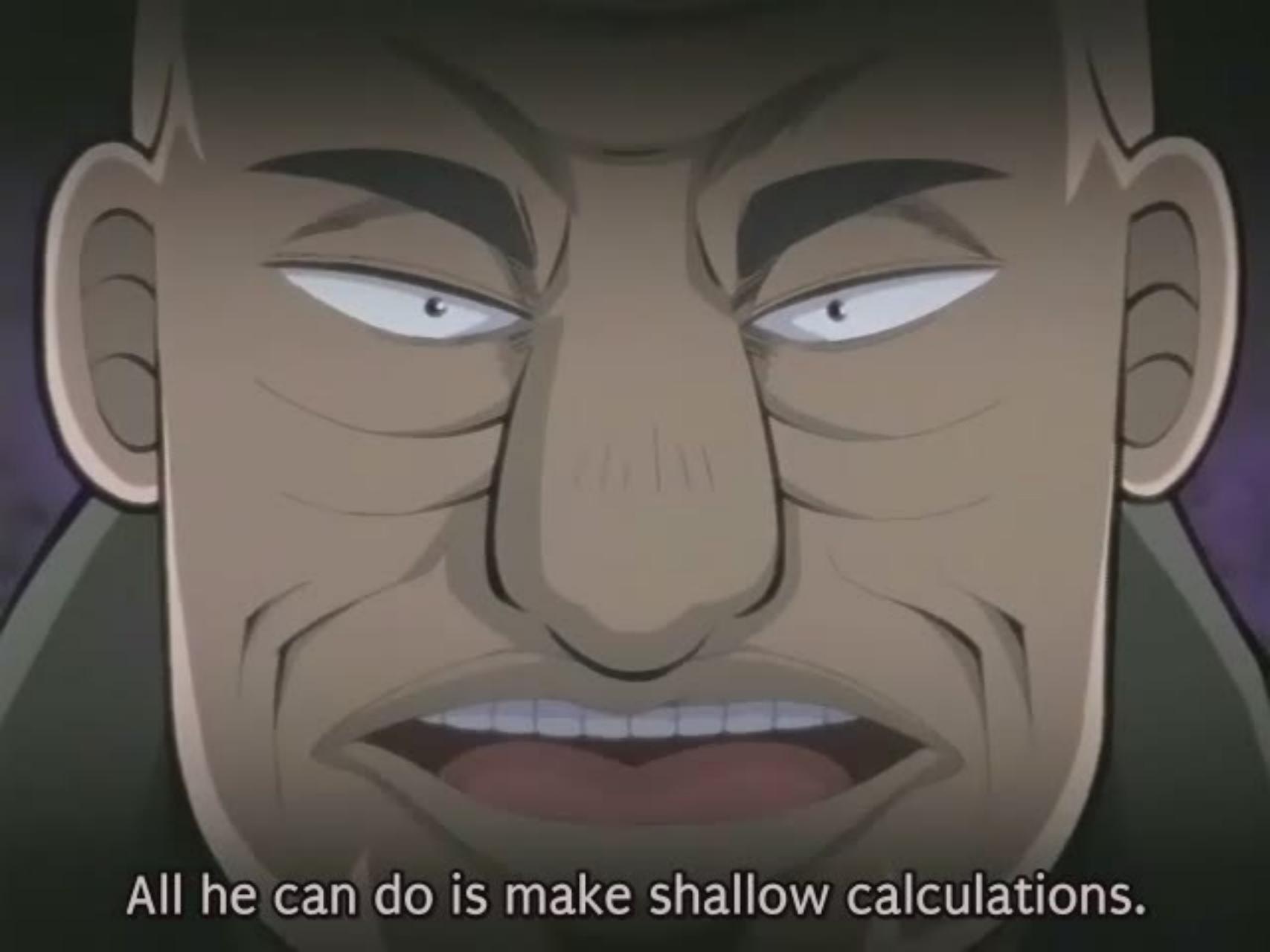
There's something he's lacking...



Which is?



He's playing by the ideology of computational complexity



All he can do is make shallow calculations.



He is second rate. It's only natural he has problems with these lower bounds.



He needs to have a keen sense for the input bits.



He has to know which bits to query.



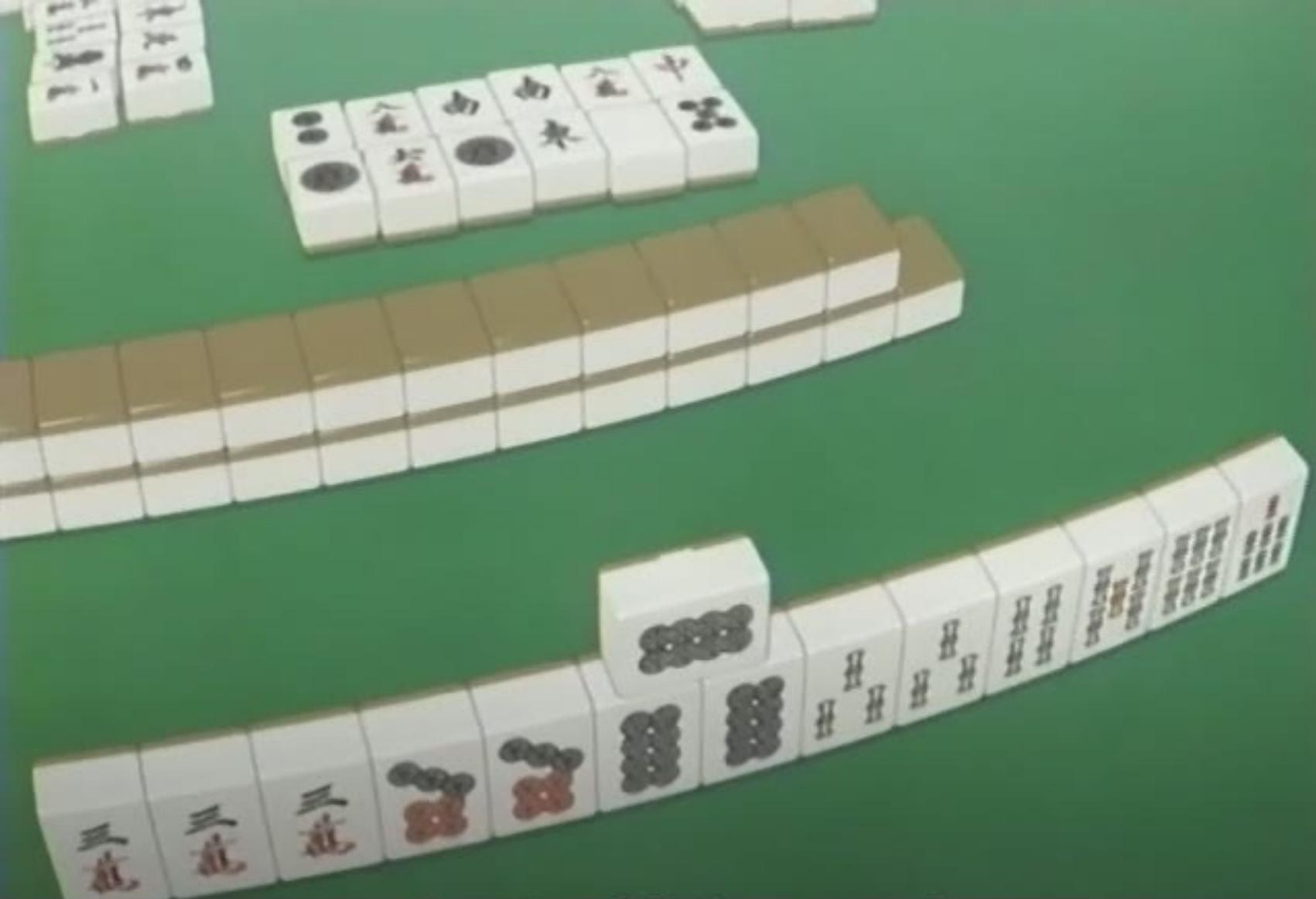
But that's not...



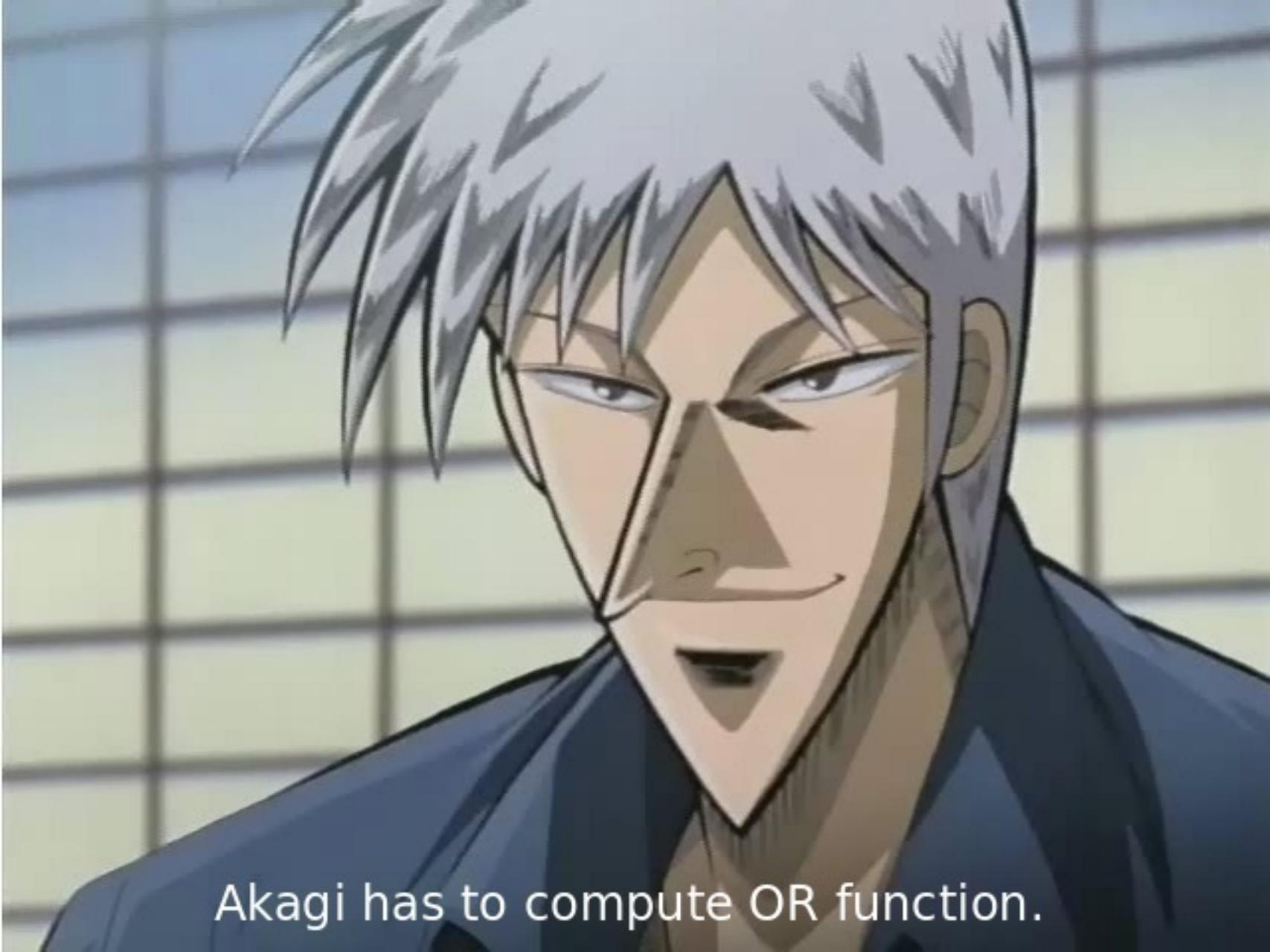
It's out of the question if he can't.



Get the real Akagi to play.



Next round.



Akagi has to compute OR function.

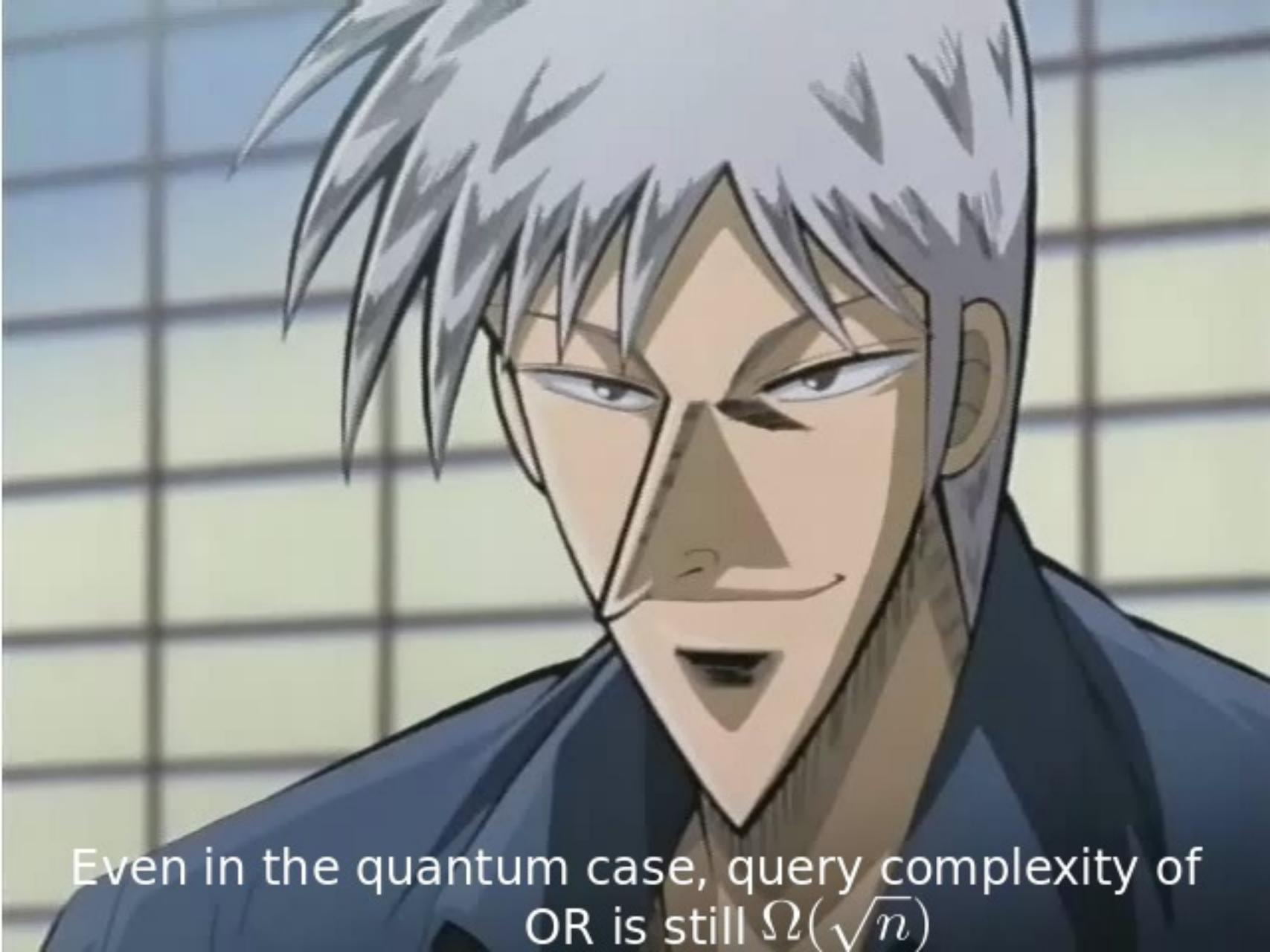


The input string is:

0000000000001001000000011000000000
01100



This is an $\Omega(n)$ problem.



Even in the quantum case, query complexity of
OR is still $\Omega(\sqrt{n})$



Akagi begins his queries.



$x_1 = ?$



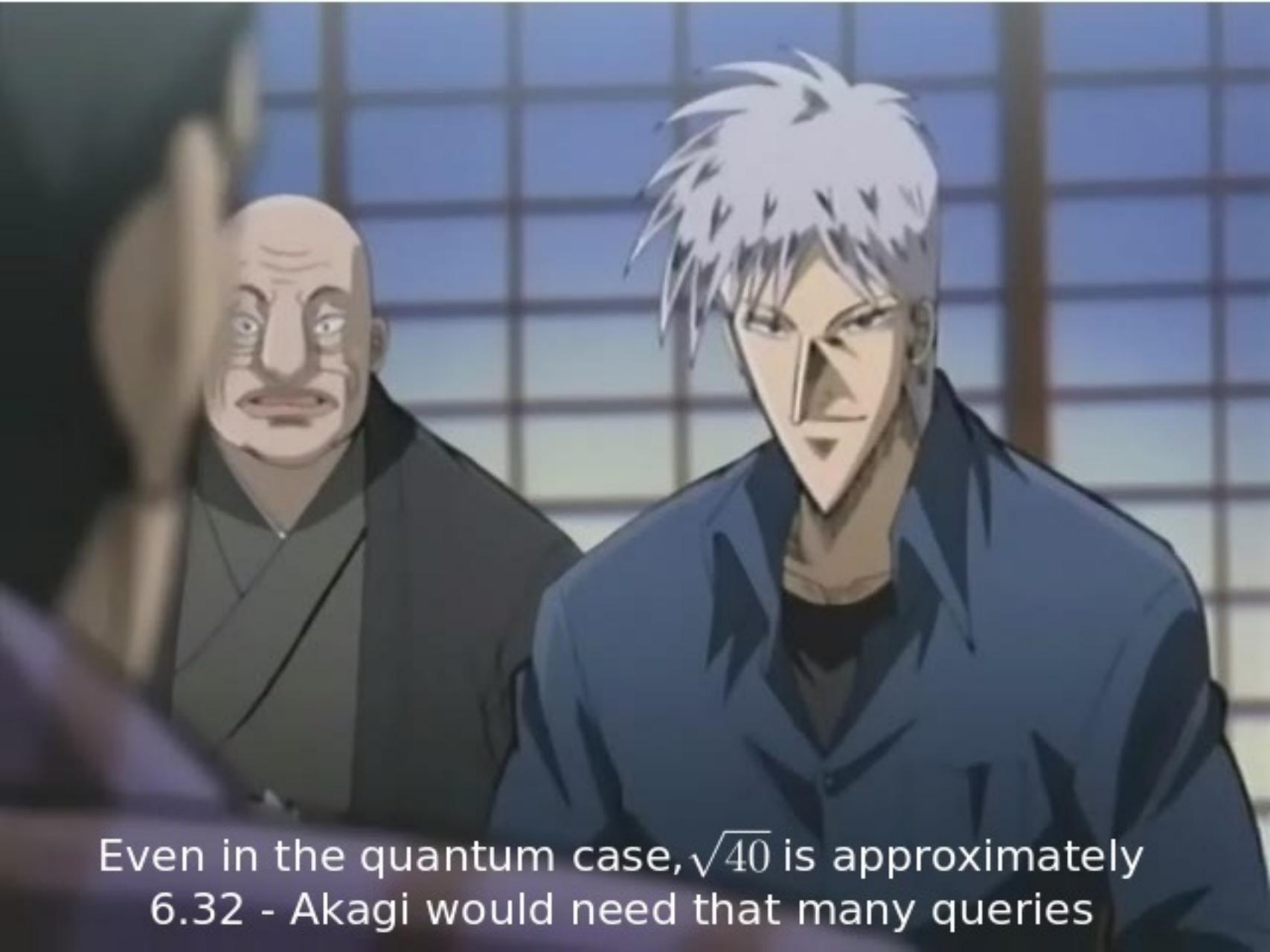
$$x_1 = 0$$



$x_5 = ?$



$$x_5 = 0$$



Even in the quantum case, $\sqrt{40}$ is approximately 6.32 - Akagi would need that many queries



Yet, after only 3 queries...



$x_2 = ?$



$$x_2 = 0$$



$f(x) = 1 - I \text{ win.}$



He queried only zeros! How...?



*That's impossible!
It's unthinkable!*



Yes, this feat of Akagi is truly remarkable.



He was able to bypass all known lower bounds and secure his win.



A godly level of gameplay.



You never know what'll happen with this man.