Title

Enigma n°3

14th December 2023

Paul-Henry Cournède (PHC) and Céline Hudelot (CH) are sitting face to face. We tell them there are 50 black chocolates, and 50 white chocolates, for a total of 100 chocolates. There are 50 chocolates behind Céline, and 49 behind Paul-Henry. One chocolate is hidden.

The two professors can not see the chocolates behind them-self, but they can see the ones behind the other professor. We ask them iteratively "Do you know what is the color of the hidden chocolate?".

They answer as follows:

- 1. PHC: "I do not know."
- 2. CH: "I do not know."
- 3. PHC: "I do not know."
- 4. **CH**: "I do not know."
- 5. **PHC**: "I do not know."
- 6. **CH**: "I do not know."
- 7. PHC: "I do not know."
- 8. CH: "I do not know."
- 9. PHC: "I do not know."
- 10. **CH**: "I do not know."
- 11. PHC: "I do not know."
- 12. **CH**: "I do not know."
- 13. PHC: "I do not know."
- 14. **CH**: "I do not know."
- 15. **PHC**: "I know! It is white!"



Legend

How many black chocolates are behind Céline?