



Problem 4. «Agents' meeting»

Alice and Bob, two special agents, were invited on the big meeting where they should find each other and communicate. Alice knows who is Bob (she was given a photo of him), but Bob has never seen Alice. Before the meeting the Boss has send them the secret password for communication: it is the square root of the first six digits of the number π modulo n , where $n = 15\,102\,023$ is a public information (known for all). Alice should find Bob and convince him that she knows the password without an announcement of it. Propose how it is possible to do. In other words, propose the zero-knowledge protocol for this specific situation. By the way, what is the sense of the number n ?

