A birthday puzzler

How many people need to be gathered together for it to be

more than 50% likely

that some two of them share a birthday?

By "birthday" I mean just month and day, rather than month, day and year. It seems reasonable to assume that all month/day combinations are equally likely for a birthday, and that February 29 plays a negligible role in the problem.

For the solution, see the class notes on Section 7.2.