Editorial

Dear Readers,

mathematical problems are all around us! As Problem Editor, one of the things I most enjoy is setting problems in which ordinary everyday life leads to interesting mathematics.

Look around you! Any physical object has a shape, and often the shape has interesting regularities (or irregularities): this is mathematics. Frequently, objects come in multiples which can be counted, perhaps in a surprisingly easy way: this is mathematics too. Facts have consequences which may need to be worked out by means of logic, the backbone of mathematics. Patterns of great intricacy and beauty can be seen everywhere, both in the natural and the constructed world: striking instances of mathematical elegance.

Among this issue's ten problems are three which were directly inspired by noticing the mathematics in my life. Why is there a problem about designing a bathroom floor? - because I really was designing a bathroom floor. (It's been designed now, and built, and it looks magnificent!) When did I think of the problem about pulling a cracker on Christmas Day? - guess what? - it was on Christmas Day when I was pulling a cracker. In my kitchen cupboard I have six bowls, two each in three colours: one day I noticed that by chance they had been stacked in pairs of the same colour. I changed the stack of bowls to a line of balls and made it four pairs instead of three, but basically it's the same question (Problem 1667 in the previous issue, with a follow-up in the present issue).

I would like to invite readers to send in any interesting mathematical questions prompted by observations from their lives. If you can send the solution too, then please do; but if not, send the question anyway. Maybe we can solve it for you.

Of course, all readers of Parabola will know that mathematics is indispensable in analysing many things that profoundly affect our existence. Finance, medicine, communications networks, ecology, pandemics,... These topics often require very high-level and difficult mathematics. We don't expect to solve all the world's problems in the pages of Parabola! However, as I hope you will agree from the examples in previous paragraphs, many of the (mathematical) problems around us lead to questions which are beautiful, often challenging, but accessible, and solvable by means of school-level mathematics. We would love to hear your suggestions!

David Angell
Problem Editor