

percentage of the cohort than the O level.

We seem to have arrived at the present situation because it was thought necessary to teach everybody mathematics, and that everybody was capable of learning mathematics. I would question both: certainly there is a requirement for most people to have a facility with number, but how many actually need mathematics beyond arithmetic and very simple algebra? Perhaps we should take a leaf from the classicists' book and provide a 'Classical Civilisation' course – call it 'Mathematics for Living' – which is designed for all the cohort, and a 'Latin' course – call it 'Mathematics' – which can then have a rigorous approach to the subject. It could cover the material in the present mathematics and additional mathematics syllabi, and provide a sound footing for the A level course. I already hear cries about disadvantaging the less able, but the present system does the opposite: it does nothing to challenge the more able, and provides a poor foundation for their further studies.

#### Reference

1. Tony Gardiner, The Art of Knowing, *Math. Gaz.* **82**, 495 (November 1998), pp. 354-372.

Yours sincerely,

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DEAR EDITOR,

Let  $\tau(n)$  be the number of positive integers not exceeding  $n$  that are expressible as the sum of two squares. For small values of  $n$ , the ratio  $\rho(n) = \tau(n)/n$  is around 0.35. For example,  $\rho(50) = 0.36$ ,  $\rho(100) = 0.35$ ,  $\rho(150) \approx 0.37$  and  $\rho(200) = 0.36$ . Does this relation continue to hold for larger values of  $n$ ? Perhaps a reader knows of an asymptotic formula or could test the result further using a computer.

Yours sincerely,

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DEAR EDITOR,

J. R. Goggins has pointed out a mistake (my typing error) in the article on Napoleon triangles [2]. Both entries  $30 - \theta$  in family A on page 416 should be  $30 - 2\theta$ , the sextet being  $(\theta, 30 - 2\theta, 90 + \theta; 2\theta, 30 - 2\theta, 30)$ .

Using an improved search program, my computer has found another adventitious set –  $(15, 30, 51; 24, 27, 33)$  – bringing the total to 39.

Adventitious angles occur in other contexts. Some years ago C. E. Tripp investigated quadrangles with integral angles [4]. These are related to the sextets by transformations such as that illustrated in Figure 9 of my article. Also J. F. Rigby has drawn my attention to a paper discussing the angles associated with triples of concurrent diagonals of regular polygons [3]. These are related both to Tripp's and my adventitious angles. Rigby's results demonstrate the existence of rational adventitious sextets that are not in any