To the Editor, *The Mathematical Gazette*

SIR,

Definition: A *solution* of a polynomial equation $p(x) = 0$ is a (real) number a such that $p(a) = 0$. The *multiplicity* of a solution a is the largest integer n such that $(x - a)^n$ divides $p(x)$.

In his response to "Find the solution set of ..." Mr Pargeter (October *Gazette* p. 303) uses the word "solution" in the above precise sense, in which sense the solution (set)s of the equations are the same. In the next sentence he implies that he also uses the word to mean "number-plus-multiplicity" in which sense the solution sets are different.

Yours sincerely,

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To the Editor, *The Mathematical Gazette*

SIR,

In the May and October, 1970, issues of the *Gazette* you have published three letters from Mr. A. R. Pargeter in which he criticizes aspects of "modern" mathematical syllabuses, "new approaches," and "blind adherence to the use of 'set language' ".

In the Exeter branch of the Association we have become accustomed to hearing Mr. Pargeter inveighing against what he thinks many of the rest of us are doing, as distinct from what we are actually doing. There are, however, two major difficulties involved in countering the general effects of Mr. Pargeter's attacks, which are to discourage teachers from examining sympathetically proposals for change, and to fortify and support those who for the wrong reasons do not wish to make any changes. The first of these difficulties is that Mr. Pargeter is a senior member of our profession, widely acknowledged as a most able mathematician and teacher whose views deserve respect. The second is that in the first flush of reform ten years or so ago much was done, and persists in text books and examination papers, which to say the least of it was hasty and ill advised, and is open to justifiable criticism; that criticism, incidentally, has not been lacking from the authors of change themselves.

If we regard teachers of mathematics as being divided into two camps—those generally satisfied, after very careful thought, with traditional syllabuses, and those who genuinely feel that substantial changes are necessary—then we might think of both camps as being embarrassed by adherents of the wrong kind: those too idle to change tacking on to the first and the whizz kids waving banners round the second. In this situation individuals can find themselves in real difficulty: if I say at the age of 55 that I favour (the enlightened teaching of) traditional syllabuses then I can obviously be written off as an old stick-in-the-mud; and if I say that I favour reform then clearly I am making a pathetic attempt to keep up with the times and avoid premature retirement.