

them in a striking way, and suggests perhaps further relations that might have remained unnoticed. The important thing then is the study of the function precedent to the graph. Thus, in the case of the linear function, the student finds his greatest advance in seeing why the graph must be a straight line—and this is not so easy a matter at this stage—rather than in lightly accepting this fact and employing it to solve a few somewhat artificial problems. The principal care has therefore been to shew what the graph is or must be, and to employ it to throw light on the important notions of variable, function, equation.

The formal treatment of the equation is very complete, in the sense that the ideas relating thereto are developed somewhat exhaustively.

The theory of indices is developed in the same way as are the extensions of number, *i.e.*, by supposing or assuming the laws to persist and thereby assign meanings to the symbols introduced, not by assigning meanings and then seeing whether or not the laws apply.

The theory of the limit is not touched upon, a brief treatment being attended with danger, and a somewhat full treatment being out of place. On this account the question of what becomes of one root of a quadratic equation, as the first coefficient becomes zero, or of the two roots as the first two coefficients become zero, is not raised. This can be considered best in connection with the more advanced problems which suggest it and give it a natural illustration.

The exercises, it is hoped, will be found sufficiently numerous, varied and fresh. While some have been taken