

of the writer's personal attitude into the work, as though there could be any work which should not reflect its maker's tone, as though God were not reflected in his creation, have tried to fasten on this so-called ideal element in literature an invidious astronomical expression, "the personal equation." Just so far as no writer sees the truth as it is, "the personal equation" applies. But the so-called realists are generally so far from seeing the truth, that the mildness of applying the phrase to their divergence would appear ludicrous.

The unity and individuality of a writer's life is seen to be reflected in the style as well as the content of his work. But the unifying principle is even harder to discover in style than in thought. Bentley's errors are a warning to those who would apply uncertain theories too closely in practice. Commentators on the ancient writers often amuse themselves more than others by their various interpretations. Still, the study both of the general question of literary unity and of the particular development of individual authors according to a unifying principle, should be fascinating enough to induce somebody to undertake an investigation for the Monthly, or for the May examination.

### Ethics and Mathematics.

STUDENTS of mathematics usually feel that so old and dignified a science requires no justification. But, when the admirers of other branches of learning claim that theirs is "the best" or "the only" or the "Alpha and Omega of education," the mathematician is tempted to enter the

discussion. I shall try to present the importance of a few ethical qualities, and to show how the study of mathematics favors their development, though I wish to be understood as suggesting a line of thought rather than as trying to effect a complete demonstration of my position.

Ethics and mathematics have several points of similarity. According to some philosophers, relations of right and wrong are deduced from certain intuitions in every human mind. In the same way, mathematical notions are deduced from a few self-evident truths. It is plain, then, since the modes of development are the same, that a training in mathematics will be valuable in acquiring a definite grasp of principles for moral guidance. But another school of ethics holds that morals are merely a matter of expediency, and that ethics is founded on analysis of circumstances. Granting this, the similarity to mathematics still holds. While the main development is deductive, yet a very large part, especially of applied mathematics, is analytical. And again it is plain that such a training gives the power of disentangling and judging the merits of alternative courses of action; and that it prepares the mind for that discrimination which will enable it to choose the right and avoid the wrong. Thus the study of mathematics is an aid to better living. Its methods of development give the individual the ability to form a rational conception of himself and of his relations to others. By the habits of thought which it forms, he is enabled to judge intelligently how far his actions fulfil his ideal of right. And as we have seen, it makes little difference whether that ideal be based on an analysis of environment, or built up from intuitive first principles.

Very little consideration will convince one of the scope and power of analogy. It is by analogy that the mind reaches from the known to the unknown. It is by analogy that the