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BY
HERBERT MCKAY

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PREFACE

The Mathematical Picture

Mathematics is a way of looking at things. No one pretends that it is the only way, but it is an important way. Those who have failed to cultivate the mathematical outlook are missing a good deal, even though they may be unaware of what they are missing. Just as a colour-blind man is unaware of the colours denied to him. The ignorant or unfortunate live in a less interesting world than those who use all their talents. Nearly all intelligent people take an interest in the universe. We want to know about the stars: their distances and movements, their constitution and conditions. We would like to know far more than we do about our nearest neighbours, the moon and the planets. Well, our knowledge of things outside the earth, as well as of a great many things on the earth itself, is almost entirely mathematical, or at least based on mathematics.

We can satisfy a rational curiosity about these things, either by accepting uncritically the statements of astronomers and others, or by working things out for ourselves and fitting them into a reasoned mathematical picture of the conditions in which we live. So long as we do not aim at technical accuracy, the mathematics is quite simple, no more than a great many people take with them when they leave school.

I have to thank several people for assistance in checking the proofs, and especially Stevens of the Upper Sixth who nobly checked all the mathematics.

H. M.

1944