

restriction on the generality of a and b . The laws governing the operations with arithmetical numbers are taken as applying to the system made up of positive and negative numbers, and in this way operations as multiplication and division are defined, and come to have a meaning for negative numbers.

After the simple rules are treated, methods of resolution into factors are considered and brought into close relation with the direct processes that suggest them. This part of the subject is treated at length on account of its importance in relation to the equation, and to afford a variety of exercise in acquiring readiness in manipulating expressions.

In Chapter XII are given certain methods and results of great importance yet of some difficulty. It seemed best not to give these here and there through the book. The teacher will naturally treat them as seems best to him, deferring the chapter or parts of it until such time as they may best be taken up.

The study of the equation being resumed, the idea of the function is introduced, and the circumstances under which a symbol as a or x is to be regarded as a general number, a certain definite number, or a variable, are considered. No apology for giving the function special treatment is offered, all who have considered the matter being of one opinion, and those most qualified to speak insisting on its early recognition. Closely connected with this idea is that of the graphic representation of the function. The course followed is not the conventional one. The graph renders vivid the march of the function or the relations of the concerned variables, yet it cannot be constructed until the bolder of these relations are grasped. It then exhibits