

CHAPTER XI: Normal curves, Moduli. The chapter opens with the theorem: "There exists no birational transformation, containing an arbitrary parameter, that transforms a curve of deficiency greater than unity into itself." The most general transformation of a curve of deficiency unity into itself is obtained in terms of the parameter w . Clebsch's and Noether's normal curves are studied and the number of moduli of the algebraic configuration is determined by counting off parameters. Thus a lower limit to the number of the moduli is rigorously established and an elegant application of this result is made to the proof of the theorem that an algebraic plane curve with non-specialized coefficients is not the most general curve of its deficiency.

CHAPTER XII presents some geometric applications of Abel's theorem, principally those to the groups of points of intersection of curves. The points of inflection of a cubic and the points where a conic has contact of the fifth order, the systems of conics tangent to the quartic wherever they meet it, the double-tangents of the quartic, and the discussion of some of these topics when the ground-curve has double-points, are among the subjects treated; but a few examples in areas, angles and lengths of arcs are taken up at the end.

The reviewer has expressed his mind freely on those points where his views differ from those of the authors. He begs leave to say in closing that his admiration for their work is none the less hearty because of these differences of opinion and to add that their treatise seems to him to be a thoroughly desirable book to put into the hands of the student.

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