

Solutions to William Fulton's
Algebraic Curves: An Introduction to Algebraic Geometry

Patrick Borse

ABSTRACT. This document contains solutions to the problems of William Fulton's *Algebraic Curves: An Introduction to Algebraic Geometry*.

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CHAPTER 1

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2. Affine Space and Algebraic Sets

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3. The Ideal of a Set of Points

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4. The Hilbert Basis Theorem

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8. Modules; Finiteness Conditions

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9. Integral Elements

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10. Field Extensions

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1. Coordinate Rings

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2. Polynomial Maps

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6. Forms

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7. Direct Products of Rings

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8. Operations with Ideals

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9. Ideals with a Finite Number of Zeros

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10. Quotient Modules and Exact Sequences

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3. Intersection Numbers

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Varieties, Morphisms, and Rational Maps

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3. Blowing up Points in P^2

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2. The Vector Spaces $L(D)$

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