

Solutions to Bjorn Poonen's *Rational Points on Varieties*

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ABSTRACT. This document contains solutions to the exercises of Bjorn Poonen's *Rational Points on Varieties*.

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CHAPTER 1

Fields

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CHAPTER 2

Varieties over arbitrary fields

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CHAPTER 3

Properties of morphisms

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CHAPTER 4

Faithfully flat descent

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CHAPTER 5

Algebraic groups

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CHAPTER 6

Étale and fppf cohomology

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CHAPTER 7

The Weil conjectures

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CHAPTER 8

Cohomological obstructions to rational points

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CHAPTER 9

Surfaces

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