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Sommario/riassunto	This English translation of Daniel Coray’s original French textbook Notes de géométrie et d’arithmétique introduces students to Diophantine geometry. It engages the reader with concrete and interesting problems using the language of classical geometry, setting aside all but the most essential ideas from algebraic geometry and commutative algebra. Readers are invited to discover rational points on varieties through an appealing ‘hands on’ approach that offers a pathway toward active research in arithmetic geometry. Along the way, the reader encounters the state of the art on solving certain classes of polynomial equations with beautiful geometric realizations, and travels a unique ascent towards variations on the Hasse Principle. Highlighting the importance of Diophantus of Alexandria as a precursor to the study of arithmetic over the rational numbers, this textbook introduces basic notions with an emphasis on Hilbert’s Nullstellensatz over an arbitrary field. A digression on Euclidian rings is followed by a thorough study of the arithmetic theory of cubic surfaces. Subsequent chapters are

devoted to p-adic fields, the Hasse principle, and the subtle notion of Diophantine dimension of fields. All chapters contain exercises, with hints or complete solutions. Notes on Geometry and Arithmetic will appeal to a wide readership, ranging from graduate students through to researchers. Assuming only a basic background in abstract algebra and number theory, the text uses Diophantine questions to motivate readers seeking an accessible pathway into arithmetic geometry.