

Rational points on elliptic curves

17.1. The group of rational points on an elliptic curve

17.2. Congruent number curves

17.3. No non-trivial rational points by descent

17.4. The group of rational points of $y^2 = x^3 - x$

17.5. Mordell's Theorem: $E_A(\mathbb{Q})$ is finitely generated

17.6. Some nice examples

Appendix 17A. General Mordell's Theorem

17.7. The growth of points

Four squares in an arithmetic progression

Appendix 17B. Pythagorean triangles of area 6

Integer points

Appendix 17C. 2-parts of abelian groups

17.8. 2-parts of abelian, arithmetic groups

Appendix 17D. Waring's problem

17.9. Waring's problem