

Diophantine problems

6.1. The Pythagorean equation

6.2. No solutions to a Diophantine equation through descent

No solutions through prime divisibility

No solutions through geometric descent

6.3. Fermat's "infinite descent"

6.4. Fermat's Last Theorem

A brief history of equation solving

6.5. Additional Exercises: A brief history of equation solving

Appendix 6A. Polynomial solutions of Diophantine equations

6.6. Fermat's Last Theorem in $\mathbb{C}[t]$

6.7. $a + b = c$ in $\mathbb{C}[t]$

Appendix 6B. No Pythagorean triangle of square area

An algebraic proof, by descent

6.8. A geometric viewpoint

Appendix 6C. Can a binomial coefficient be a square?

6.9. Small k

6.10. Larger k