Math 406 – Fall 2025 – Harry Tamvakis
PROBLEM SET 11 – Due December 11, 2025

Reading for this week: Sections 16 and 20.

Problems

From the textbook: Section 16, #2, 4, 6, 9, 14. Section 20, #2, 4, 5, 12, 14.

Extra Credit Problem.

EC) Suppose that k and N are positive integers such that N is not a square. Prove that if the equation $x^2 - Ny^2 = k$ has one solution, then it has infinitely many solutions. Give an example of such an equation with NO solutions.