

Sommersemester 2025 Homework 9

1. QUESTIONS

- (1) Make sure that you saw the final exam date on the course webpage. Name one thing which you have found challenging in the class this week and one thing you think you understood well.
- (2) Let (x_1, y_1) be a positive integer solution of

$$x^2 - dy^2 = 1$$

where d is not a square where y_1 is minimal. Show that (x_1, y_1) is minimal: for all positive nontrivial integer solutions (x, y) , we have $y_1 \leq y$ AND $x_1 \leq x$.