MAT102S - Introduction to Mathematical Proofs - WINTER 2022- UTM

Problem Set J - NOT to be submitted.

Quiz 4, to be written on Thursday, APRIL 7, from 6:00pm to 7:10pm, will be based on this problem set.

- **Chapter 6**: 6.4.14, 6.4.15, 6.4.16 (f), 6.4.25, 6.4.27.

Q1. How many integer pairs (x, y) satisfy the equation $9x^2 = y^2 + 187$. Find all of them. Justify your answer.

Q2. Prove that the equation $2^x - 1 = y^2$ has no integer solutions where $x > 1$.