MATH 102: HOMEWORK 1 (SOLUTION)

GRADED WORK TURNED IN BY THURSDAY, SEPTEMBER 5

Problem 1 (Exercise 1.2). The error comes from the third line of the proof, where the author divides both sides of the equality by $(x - y)$. This is illegal because $x - y = 0$.

Problem 2 (Exercise 1.3).   (1) No. The number of squares on the board would be $m \times n$, which would be odd. However, to perfectly cover the board, one needs an even number of square.
   (2) Yes. An example of that would be to vertically tile the board.

Problem 3 (Exercise 1.15).

Problem 4 (Exercise 1.20).