MATH 3012, Quiz 1

May 22, 2013

Name: _____ **GTID:**_____

Problem 1 (2 points).
(a) How many positive integer solutions are there to $x + y + z + w = 17$?
(b) How many non-negative integer solutions are there to $x + y + z + w = 17$?

Problem 2 (2 points).
How many lattice paths from (2, 5) to (10, 15) do *not* pass through (8, 10)?

Problem 3 (1 points).
Consider the 16-element set consisting of the ten digits $\{0, 1, 2, ..., 9\}$ and the six capital letters $\{A, B, C, D, E, F\}$. How many strings of length 9 can be formed using exactly two 6's, three B's and four D's?