CSC 1300–002 Discrete Structures
January 24, 2017

Quiz 1

10 minutes, 20 points. No devices with on/off switches, books, or notes may be used. The University's academic integrity policy governs the conduct of this quiz.

1. Let's assume that PennDot has issued license plates with three letter combinations starting at DAA and going through KZZ. These three-letter strings are followed by four digits. We've discovered that PennDot uses a 22 letter alphabet.

   (a) How many possible license plates are there using this range of letter strings?

   (b) How many possible license plates are there whose last digit is an 8 or a 9?

2. Let a and b be two odd numbers. Carefully prove, in the style suggested by the textbook, that

    (a) $a + b$ is even.

    (b) ab is odd.