

CSci 1302 Extra Credit Assignment

Due Monday, May 10

Problem 1 (10 points). Exercises 7 p. 226, 31 p. 227, 18 p. 233, 27 p. 234.

Problem 2 (6 points). Write a loop for finding $n!$ using multiplication similar to the loop on p. 248 for finding a product using addition. Write down its pre- and post-condition and the loop invariant. Prove the correctness of the loop.

Problem 3 (6 points). Exercises 23, 24, 43 p. 530.

Problem 4 (10 points). Exercises 15 p. 541, 41, 42, 43 p. 543.

Problem 5 (8 points). Exercises 15, 17 p. 268, 30 p. 269.

Problem 6 (9 points). Exercises 30, 31, 34 p. 282. Use set properties that we have already proven or propositional proofs. Do not use the element argument.

Problem 7 (10 points). Exercise 20, 32 p. 593, 21 p. 609, 14 p. 647.