

Comp 3220, Fall 2017 – Assignment 2

Due Thursday, November 16, 2017 at 11:59 pm

Programming in Prolog

For this programming assignment, you will be writing three short programs in Prolog. Please submit your three Prolog programs in a zip file and upload them to Canvas under Assignment 2. The name of your zip file should use the following format: **assignment2_username.zip**.

Question 1

Write a Prolog program named `between_ints.pl` so that `between_ints(I,J,K)` is true iff K is an integer between integers I and J inclusive.

`between_ints(3, 20, 5)`. should be true

`between_ints(3, 20, 20)`. should be true

`between_ints(3, 20, 21)`. should be false

Question 2

Write a Prolog program named `p.pl` so that `p(X)` is true if X is a list consisting of n a's followed by n b's for some integer n.

`p([a, a, b, b])`. should be true

`p([a, b, b, b])`. should be false

Question 3

Write a Prolog program named `list_min.pl` so that `list_min(L,M)` is true if M is the smallest element in the list L. The list will not be empty.

`list_min([5, 2, 7, 1, 3], 1)`. should be true

`list_min([5, 2, 7, 1, 3], 2)`. should be false