

## CSE 3622 Artificial Intelligence Sessional

### Lab 4: Homework 4 (Prolog List)

1. The SEND MORE MONEY puzzle is a classic cryptarithmic puzzle. The puzzle asks you to replace letters with numbers that makes this equation true:  $\text{SEND} + \text{MORE} = \text{MONEY}$ . Each letter stands for a single digit, 0 to 9, and different letters are different digits (so, for example, S and E can't be the same). Also, S and M can't be 0 because numbers don't start with 0.
2. Make a list unique  $[a,b,c,d,a,b,e,f] \Rightarrow [a,b,c,d,e,f]$
3. Define a predicate  $\text{occurrences}(X,L,N)$  which holds if the element X occurs N times in the list L.
4. Solve Tower of Hanoi Problem using Prolog.