CSC301 Assignment #5

Due Monday 10/19 in class.

Exercise 2  Give the ML type corresponding to each of the following sets:
   a. {true,false} 
   b. {true,false} -> {true,false} 
   c. {(true,true),(true,false),(false,true),(false,false)}

Exercise 3  Investigate and report on these array varieties. Describe your findings fully, and don't forget to discuss representation issues and supported operations.
   b. Associative arrays in Perl.
   c. Arrays in APL.

Exercise 4  Suppose there are three variables X, Y, and Z with these types:
   X: integer that is divisible by 3
   Y: integer that is divisible by 12
   Z: integer

For each of the following assignments, knowing nothing about the values of the variables except their types, answer whether a language system can tell before running the program whether the assignment is safe? Why or why not?
   a. X := Y
   b. X := X
   c. Y := Y + 1
   d. Z := X
   e. X := Z
   f. X := X + 3
   g. X := X + Z

Do Exercise 2 and Exercise 4 d through g. For exercise 2 recall that {...} specifies a set and (...) a tuple. A list is specified as [...].