CSC108H Worksheet: Variable Assignment Statements

1. Changing variable values

   (a) Consider this code:

   \[
   k = 5
   \]

   Write an assignment statement that creates a new variable \( j \) that refers to three times \( k \)’s value:

   ______________________________________________________________________

   (b) Consider this code:

   \[
   x = 4
   y = 5
   x = 2
   \]

   After the code above is executed, to which value does \( x \) refer? ______________________________________________________________________

   After the code above is executed, to which value does \( y \) refer? ______________________________________________________________________

   (c) Consider this code:

   \[
   x = 4
   y = x + 2
   x = y + 1
   \]

   After the code above is executed, to which value does \( x \) refer? ______________________________________________________________________

   After the code above is executed, to which value does \( y \) refer? ______________________________________________________________________

2. Swapping variable values An extra exercise to try at home.

   Assume that variables \( a \) and \( b \) have been assigned int values. Write code to swap which values \( a \) and \( b \) refer to: after your statements are executed, \( a \) should refer to the value that \( b \) used to refer to, and \( b \) should refer to the value that \( a \) used to refer to. Hint: use a third variable.

Once you have written the code, trace your code using the memory model to confirm that it correctly swaps the values: