Werkcollege Compilerconstructie
Dinsdag 4 november 2014

1. (cf. Exercises 8.6.1 and 8.6.4 from the book)

   Consider the following C code:

   ```
   x = a[i] + 1;
   k = x;
   b[i][j] = k + y;
   ```

   Assume that all array elements are integers taking four bytes each, and that b is a 100×100 array

   (a) Generate three-address code for this C code

   (b) Convert your three-address code into machine code, using the simple code-generation algorithm of Section 8.6, assuming three registers R1, R2 and R3 are available. Show the register and address descriptors

   - before the first instruction
   - and after each piece of assembly code that corresponds to a three-address instruction.