Use the MINILAX Definition and to answer the following questions. Reference and quote from the document in each case to support your answer.

1) What is the value of “3 div -2”?

2) Examine Figure 2.2 of the MINILAX definition and find one example of each of the allowable coercions.

3) Why does Section 1.2.5 define the iteration to return no result?

4) Give an example of a MINILAX clause with the following properties:
   - It yields a value that is not void.
   - Its component statement lists yield values of different types.

   Explain how balancing will be used in your example.

5) Write a MINILAX program to find the sum of the integers between two given integers. Formally, the problem may be stated as follows:

   Given integers $l, u$ with $l < u$

   Find an integer $R$ such that $R = \sum_{i=l+1}^{u-1} i$

   The limits are to be variables given initial values as in Figure 2.1 of the MINILAX definition, and may be supplied by the user in either order. For example, if the input to the program was "20 10", the output should be $(11 + 12 + \ldots + 19) = 135$; the same output would be produced if the input to the program was "10 20".

   The purposes of this assignment are to review your understanding of programming language definitions and to familiarize you with MINILAX. It is worth 10 points, and is due at the beginning of the lecture on January 21.