Friday questions week 5

1. In unimodular transformations, usually the new loop’s bounds must be computed. How is that done?
   page 213

2. Explain the principles of inner loop parallelization based on unimodular transformations. Assume you already have the dependence distance matrix D.
   page 220

3. Why is there a conflict between instruction scheduling and register allocation?
   page 228

4. When scheduling an instruction $v$ in modulo scheduling, all already scheduled instructions which are related to $v$ by a data dependence, must be checked. How and why?
   page 233

5. In addition to data dependences, the availability of the resources required by an instruction each cycle must be checked. How is that done and why?
   page 233

6. Variables defined first and later used in each iteration create dependences which can be avoided. How is that done in modulo scheduling?
   page 235