Laboratory Three: Basic Elements of C

Problem: Jerry's trade

- **Problem description**

  Jerry prepared *M* pounds of cat food, ready to trade with Tom who is guarding the warehouse containing Jerry's favorite food, cheese. The warehouse has *3* rooms. Each room contains *J* pounds of cheese and requires *F* pounds of cat food. Jerry does not have to trade for all the cheese in the room, instead, he may get *J * a%* pounds of cheese if he pays *F* a%* pounds of cat food. Here *a* is a non-negative integer number (0 <= a<=100). Now he is asking for your help: tell him the maximum amount of cheese he can obtain.

- **Input & output requirements**

  The input begins with a line containing one non-negative integer *M*, representing the *M* pounds of cat of food Jerry prepared. Then 3 lines follow, each represents one of the 3 rooms in the warehouse and contains two non-negative integers *J* and *F*, respectively. All integers are less than 1000. The output is in a single line, with a float number to a precision of 3 decimal places, representing the maximum amount of cheese that Jerry can obtain.

- **Sample results**

  Sample 1

  5

  7 2

  4 3

  5 2↵

  The maximum amount of cheese is 13.333

  Sample 2

  20

  25 18

  24 15

  15 10↵

  The maximum amount of cheese is 31.500

- **Tips:**

  a) **Three steps**: 1) understand the problem, 2) design an algorithm, and 3) implement.

  b) **Search** "How to printf a float number to a precision of 3 decimal places" (e.g., 13.333, 31.500) ? a precision of 2 decimal places