Hints for Project 7

The code for this project is quite simple. However, figuring out the algorithm will take some work. The best approach is to carefully study the table shown in the instructions to see how the numbers in the columns relate to one another. There is a very clear pattern that emerges if you stare at the table for a while. It may help if you use paper and pencil and write down what is going on each month. As noted in the problem description you begin with one pair of rabbits. At the end of one month that pair produces one pair of offspring, so at the beginning of month two you have one adult pair of rabbits and one pair of baby rabbits. Your total number of pairs of rabbits is two.

What happens the following month? Well, the initial pair of adult rabbits produces another pair of offspring. However, the pair of babies born at the end of last month isn't old enough to have babies yet. They still count as adults though, so the adults column is now 2 and the babies column is 1.

On your own, write down what happens each month for several more months. Now, think carefully about what you did to calculate the number of rabbits each month. There is a simple arithmetic relationship between the numbers in the columns of the table. Write these steps down in an activity diagram. Now you are ready to convert your diagram into code.

To produce the table in the output, consider using tabs to move between columns. Your output line might look something like

```
    Console.WriteLine("{0}\t{1}\t{2}\t{3}", i, adultRabbits,
babyRabbits, pairs);
```