King Saud University College of Computer and Information Sciences Computer Science Department		
CSC 111:Introduction to Programming with Java	Sheet 4 (loops)	First Quarter 1444

Q1) Sara and Nora are playing a dice game with two dice named Dice1 and Dice2. Both dice have six faces valued from 1-6. One of the dice is rigged; the rigged dice has a higher probability to roll 6 while the rest of the values have the same probability to face up. Given the values that Sara and Nora rolled in a game, write a program that identifies which dice is rigged.

Example:

- One game has N rounds, in this example N=4 (see sample run below)

- At the beginning of the game (round 1), Sara has Dice1, and Nora has Dice2. They both roll their dice at the same time and add the rolled value to their **own** score (They both start with an initial score of 0); if the scores are not equal, they will exchange the dice before the next round.

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```
Let's Play!
Enter number of rounds:
▶▶ 4
Enter Sarah's then Nora's numbers (1-6):
▶▶ 1 4
Exchange
Enter Sarah's then Nora's numbers (1-6):
▶▶ 6 3
Enter Sarah's then Nora's numbers (1-6):
▶▶ 3 5
Exchange
Enter Sarah's then Nora's numbers (1-6):
▶▶ 5 6
Exchange
Dice2 is rigged
```

Explanation:

- In the first round Sara had Dice1 and Nora had Dice2, total is 1 and 4 which is not equal, so they exchange the dice.

- In the second round, Sara rolled Dice2 and got 6, and Nora rolled Dice1 and got 3. Both have a score of 7 so they don't exchange.

- In the third round, Sara rolled Dice2 and got 3, and Nora rolled Dice1 and got 5. Sara Score is 10 and Nora score is 12 so they exchange the dice.

- In the fourth round (the last one), Sara rolled Dice1 and got 5, and Nora rolled Dice2 and got 6. Sara Score is 15 and Nora score is 18 so they exchange the dice. From these four rounds, it turns out that Dice2 is rigged.

Q2) write a java program that calculates the average exercising time per day.
The program will ask the user to enter the number of weeks you want calculate then asks about the amount of time you have been exercising in each day.

You might tell the program that you didn't exercise at all in some weeks.

Sample run:

```
-- Welcome to your active time calculator --
How many weeks you have been exercising:
3
Week: 1
Have you been active this week at all ? (yes - no)
yes
How long you have been active in hours:
Day 1: 1
Day 2: 0
Day 3: 2
Day 4: 1
Day 5: 0
Day 6: 3
Day 7: 1
Week: 2
Have you been active this week at all ? (yes - no)
no
Week: 3
Have you been active this week at all ? (yes - no)
yes
How long you have been active in hours:
Day 1: 1
Day 2: 0
Day 3: 2
Day 4: 2
Day 5: 0
Day 6: 1
Day 7: 2
     -- Your average is: 0.76 hour per day --
```