Java   Name -
Composition Worksheet #5   Period -

Review the Composition5 demo program and answer the following questions. Use the associated data file and visual diagram to help you.

1. Complete the code segment below that could be used in the Composition5 client program to compute and display the average of Bill Smith's semester grades from all of his classes (e.g. 83.75).

```
int studentNum = 1; // hard-wired for Bill Smith
int total = 0;      // total number of points for a student
int count = 0;      // number of grades adding into a total

for (int course = 0; course < _____ ; course++)
{
   for (int semester = 0; semester < _____ ; semester++)
   {
      total += classRoster[studentNum].getGrades()[_____][ _____];
      count++;
   }
}
double average = _____ / _____ ;
System.out.println(average);
```

2. Trace the code segment in Exercise #1 by completing the columns below.

studentNum	total	count	course	semester
1	0	0	0	0

3. Complete the code segment below that could be used in the Composition5 client program to display the average of the semester grades for that student in a specific semester.

```
int studentNum = 1;            // hard-wired for Bill Smith
int total = 0;                 // total number of points in semester
String firstName = "Bill";     // hard-wired for Bill Smith
int semester = 0;              // semester being averaged

if (classRoster[studentNum]._____.getFirstName().equals(firstName))
{
   total = classRoster[studentNum]._____()[0][semester] +

           classRoster[studentNum]. _____()[1][semester] +

           classRoster[studentNum]. _____()[2][semester] +

           classRoster[studentNum]. _____()[3][semester];
}

System.out.println( total / _____ );
```

4. On the back of this paper, rewrite the body of the if statement (i.e. the assignment statement total = ...) as a for loop using course as the name of your loop variable.