Midterm exam - CS5000 (September 27, 2017)

Name: _____

Question:	1	2	3	4	5	6	Total
Points:	10	10	15	15	30	30	110
Score:							

1. (10 points) Write Java code to create a variable of type String, called name, and initialize it to your name

2. (10 points) Given the following code fragment, what would be the value of ans at the end ?

```
int a=10, b=a+1;
++a;
b *=2;
ans = b−a;
```

3. (15 points) Write a java function called add, that takes two integers and returns an integer, the result of adding its two parameters

4. (15 points) Using a case statement, write a java function that converts numbers from 0-3 into the seasons of the year (0=Spring, 1=Summer, 2=Fall, 3=Winter)

5. (30 points) Using recursion (no loops allowed) write a function called PrintByStep, that takes two parameters, a PrintStream and an int (say, step). The function prints to the printstream all numbers from 0 to 100, incrementing by step (so, for example, PrintByStep(System.out, 20) would print 0,20,40,60,80,100)

6. (30 points) Using recursion (no loops allowed) write a function called stringContains that takes two parameters, a String and a char ; stringContains returns true if the string contains the character, false otherwise. Hint - You can assume there are functions first, that takes a string and returns a string, and rest, that take a string and returns the string without the first character. Alternatively, define a function that takes 3 parameters and use charAt and length

Total questions: 6 Total points: 110