**COMP232 – Data Structures & Problem Solving**

**Homework #6**

**Stream in Java**

1. **public** **static** **void** printSquares(**int** start, **int** end) {

IntStream.*range*(start, end).map( ).

forEach( );

}

Complete the function above so that it prints the squares of integers between start and end.

2. Write a function to find all even integers between 0 and 100 using a Stream, filter, and a lambda function. Your function should print out the results.

3. Write a function to find all even integers between 0 and 100 using a Stream, map, and a lambda function. Your function should print out the results.

4. Write a function to find the sum of cubes using map and reduce.

5. Write a function to find all divisors of an input number and return the results as an ArrayList. You can assume that the input is an integer greater than 0. It should have the following method signature and use Stream, filter, and forEach.

**public** **static** ArrayList<Integer> factors(**int** i){

}

6. Make a copy of your function from #5, but change it to ParallelStream instead of Stream. What is different between the output of this new function and the original?