MTH 169 Study Guide for Test 1

Below in **bold face** is a list of topics that will be covered in test 1. Under each topic is a list of representative problems from your homework and from the examples in the textbook. One way to prepare for the test would be to review these problems and make sure that you understand the concepts and methods used in solving these problems. The problems in the test will be similar to those problems. As scheduled your test 1 will be on **Thursday, Jan. 24**. We will have a review session on Wednesday, Jan. 23. Be prepared to ask questions.

1. **Areas enclosed by curves — Section 6.1**
   - Examples: 1, 2, 5, 6
   - Exercises: 5, 6, 7, 11, 13, 19, 23, 48, 49, 51

2. **Volumes by disks and washers — Section 6.2**
   - Examples: 2, 3, 4, 5, 6
   - Exercises: 4, 5, 11, 15, 17, 19, 23, 27

3. **Volumes by shells — Section 6.3**
   - Examples: 1, 2, 3, 4
   - Exercises: 5, 6, 9, 11, 15, 16, 19, 37, 38, 39

4. **Arc lengths— Section 9.1**
   - Examples: 1, 4
   - Exercises: 7, 9, 10, 21, 41

5. **Surface areas— Section 9.2**
   - Examples: 1, 2
   - Exercises: 5, 7, 11, 13, 15