

## CISC181H Spring 2009 Lab09

- Write a program for each of the following problems. Be sure to save every separate program. All programs must be properly commented and indented (see Assignment Standards on the class website). Ask your TA for guidance.

### Programs

1. Review constructors6.cc in example section of website. Predict exactly what it will print, then check your answer. If you are correct, spell out “YMCA” with your body, including the null terminating character. If you are wrong, pat your head and rub your tummy while counting to ten out loud, then discuss code behavior with peers.
2. Extend your class Rat for rational numbers. Overload the \* and << operators once each so that it handles:

```
Rat r1, r2;  
...  
cout << r1 * r2 << endl;  
cout << r1 * r2 << endl;  
cout << r1 * 3 << endl;  
cout << 3 * r1 << endl;  
cout << r1 << " " << r2 << endl;
```

3. Prepare for your Friday group presentation: 7-8 minutes on what you are doing, what the challenges are, what your overall design looks like. All team members must present. You may use the projector - bring a memory stick (I have powerpoint and keynote and acroread) or your own laptop (be sure you know how to make it work with a projector first).

You should have a total of 1 programs named lab08.1.cc to lab08.1.cc, plus any makefiles and written answers specified above. Make a single script file (see lab00 for the instructions) where you cat, compile, and run lab code in its final form.

Submit all 1 program files *and* your script on WebCT by midnight before your next lab. Give the paper version of the complete script file **only** on paper to your TA at the **beginning** of your next lab. Note: Cat, compile, and run each program in order - do *not* cat all programs, then compile, etc.