Math 453, Section X, Spring 2008
HW Assignment 6, due Friday, 3/14/2008

Name (print please):

- **Rules:** The usual: Write your name on the cover sheet and staple the sheet to the assignment. Only the problems marked by an asterisk are to be turned in. Do these problems in order, and make sure that each problem is clearly labelled.
- **Open House Hours:** As usual, Wednesdays and Thursdays, at 5 pm, in 141 Altgeld. I'll stay as long as needed. (This week, because of an upcoming exam in my other class, students from that class will have priority.)

HW 6 Problems (all from Chapter 3 of Strayer)

1. * 3 (see hint)
2. * 5(h)
3. * 7(a)(b))
4. * 10(h)
5. * 14(b) (Hint: As in the class example on 3/3, split off the odd part of n, i.e., write $n = 2^\alpha m$, where m is odd.)
6. * 30(h)
7. * 31(e)
8. * 42(h)
9. * 47 (Hint: Clear denominators!)

   The following two problems are not from the book, but similar to examples worked out in class. In both cases, clearly show how you arrived at your answer.

10. * Find all positive integers n for which $\phi(n) = 12$.
11. * Find all positive integers n for which $\phi(n) = 1024 (= 2^{10})$.
12. 5(a)(c)(g)
13. 10(a)(c)
14. 30(a)(c)
15. 31(a)(c)(d)
16. 32
17. 42(a)(c)