Math 55—Fall 2012
Homework 6

Part I: Not to be handed in.

4.3: 3, 5, 9, 15, 17(a,b), 25(a,c,f), 27(a,c,f), 33(c), 49

4.4: 1, 5(a,b), 7, 21

Part II: Problems to hand in. One or two problems will be selected for thorough grading and count 10 points each. Others count 2 points each.

4.3: 6, 12, 28, 40(f), 50 [hint: show that $\gcd(a, m)$ and $\gcd(b, m)$ divide each other], 54

4.4: 8, 12(b), 24, 32

Additional Problem: prove that if $n \equiv 7 \pmod 8$, then n cannot be a sum of three perfect squares. Hint: see 4.1 #40 from Homework 4.