

Math 595 – Homework assignment #6
posted April 3, 2009; due Friday, April 17, 2009

Exercises

As always, please consult the latest version of the book online to be sure you are doing the correct problems. For this homework assignment, begin by grokking the statement of Exercise 15(a). This is a *usable* version of the Brun–Hooley upper bound that suffices in many applications.

1. Using Exercise 15(a), prove Theorem 5.4 and Theorem 5.6. **Do not reproduce the proofs of these results that are given in the text; instead, carefully explain how to quickly derive these results from 15(a).**
2. Exercise 10. (You may use the result of Theorem 5.6.)
3. Exercise 17. (Again, derive this from Exercise 15(a).)
4. Exercise 18(a). (Again, please use Exercise 15(a).)
5. **Extra credit:** Prove Exercise 15(a).