

# Homework 11

Math 220 (section 906), Fall 2018

This homework is due on Thursday, Nov. 8. (Turn in your answers to questions 1–4.) You may cite results from class, as appropriate.

0. (*This problem is not to be turned in.*) Read Section 6.2.
1. What is a *linear combination*? (page 138)
2. (No proofs necessary for this problem.)
  - (a) Give an example of integers  $a$  and  $b$ , with  $a < 0$  and  $b < 0$ , such that their g.c.d. is 8.
  - (b) Give an example of integers  $a$  and  $b$ , with  $a \geq 20$  and  $b \geq 20$ , such that their g.c.d. is 12.
3. Let  $a$  and  $b$  be nonzero integers. Let  $d = \gcd(a, b)$ . Prove that  $a/d$  and  $b/d$  are both integers.
4. Section 6.2 #1(a and b), 2, 3

# Writing Assignment 7

Math 220 (section 906), Fall 2018

This homework is due on **Tuesday, November 20**.

- Extend your draft to include *all* sections of your final paper:
  1. the introduction (what will your paper be about?),
  2. the mathematical background (define and/or explain all unfamiliar terms),
  3. *three* sections developing main ideas from Writing Assignment 3, and
  4. a short discussion or conclusion.
- *Edit your draft in response to all comments.*
- The required length is at least *seven* pages.
- *Please print 1 copy of your draft.*
- If you do **not** turn in this draft, you will receive a 5% penalty on the final paper.