

Homework 9
Math 130 - Due March 31, 2011

Written Problems from P&B:

Section 5.5 (p. 130) # 1, 2, 3 (optional, do it if you want more practice with proofs), 4, 5, 6, 7, 10

Section 6.1 (p. 137) # 2, 3 (do not do the problems on p. 50, you only need to do 6-8 on p. 51 – remember to identify the interpretation of subtraction that is used for each problem), 4, 5, 6

Section 6.2 (p. 142) # 2, 3, 4, 7, 9

To be done as a 40-minute quiz. Please show all your work, you will be graded on the presentation of your solutions as well as the mathematics involved.

1. Prove that given any two whole numbers a and b , we always have

$$a \times b = \text{GCF}(a, b) \times \text{LCM}(a, b).$$

Hint: use the prime factorizations of a and b .

2. Do activity 2K (all 3 parts) on page 28 of Beckman. You will be graded on both insightfulness, clarity, and conciseness.
3. If we use the least common denominator to add two fractions, is the resulting sum ALWAYS in simplest form?

To show this, you'll either need a proof that it works for any numbers or a counterexample where it doesn't work for specific numbers.