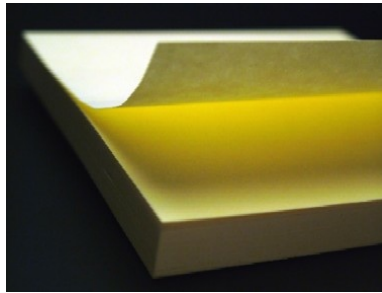


Final Exam Review Sheet

Post-it Notes

June 15, 2009



Hi kids! I'm a large stack of post-it notes, in the midst of my lifelong dream to remind Corey of the hundreds of things he needs to get done before he may take a break of any kind. And so, I've decided to type out this review sheet for you all to help you study for the final exam! Good luck, and ROCK ON!

1. Chapter 5: Exponents. In this chapter, we learned about exponents, and how they relate to multiplication. In particular, in Sections 5.1 (an introduction to the chapter) and 5.2, we began our investigation with least common multiples (LCM). Namely, there was a specific process we had to find the LCM that involved a study of the prime factorization of the numbers involved, and when exactly it was the case that the LCM of two numbers be the product of the two numbers (it isn't always the case!). In Section 5.4 (we skipped 5.3) we learned about numeration systems: counting and arithmetic in other bases. Adding and subtracting in base 2, 3, 4, 5, and generally any other base was discussed, and we discussed how the algorithms for addition and subtraction were the same, even if the digits involved weren't. Chapter 5.5 was fun in counting and arithmetic in base-2.
2. Chapter 6: Subtraction and division. We began our discussion of subtraction with a discussion of what exactly subtraction is (modeling section 6.1), and then got into methods of subtraction using base-10 blocks (subtraction was also covered earlier with the algebra tiles, but in the context of understanding addition of negative numbers). In section 6.3, we discussed the definition of division, and different aspects of how to

demonstrate it: using an area model and box puzzles with borders, for instance. A big discussion from this section was to understand the *gcd* of two numbers (greatest common divisor, or *GCF*: the greatest common factor), and to learn and apply the Euclidean Algorithm to compute this number.

3. Chapter 7: Fractions. This is the dreaded chapter about fractions. We discussed in specific order the notions surrounding fractions. These were to 1) Understand what fractions are by way of a model (of which we discussed the area, rod, and set models in class), 2) Learn how to multiply fractions, so that 3) we may understand how to equate two fractions, and only then 4) demonstrate the addition of fractions with or without a common denominator. From there, we can discuss 5) subtraction of fractions, and finally 6) division of fractions. The fraction “slide rules” that we used on the last day of class were a wonderful tool for demonstrating points (1), (3), (4), and (5). They are to be well-understood for our exam since so much of what is lacking in an understanding of fractions has to do with these notions. We then understood division of fractions through a general understanding of the other skills involving fractions.
4. General suggestions for studying for the final: It’s been a wonderful term, and I’m sad to have to even write and give (and grade!) a final! But, I guess it’s my duty. I would say that the final exam will be much like the midterm in the sense that all of the big topics will be covered, and it will ask you to demonstrate proficiency in the many topics we have covered. The skills and content that we covered in class (during lecture, or during our activities) are extremely important, and a lot of the exam will ask you to replicate skills and demonstrate knowledge in the areas we discussed. The homework will also be a part of the final exam, which is a cumulative exam—the material from the first exam will also be fair game for the final. Should you have any questions about anything, or if you’d like help studying anything, feel free to email Corey, or stop by his office for help. Other than that, good luck, and ROCK ON!!!