

## Math 211, Exam TWO Review

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### ***Exam Two is an in-class exam, given Tuesday, Week 9 (see course schedule)***

- For Exam TWO you should study your assigned homework, the examples in our text and the class activities we have done for Sections 3.1, 3.2, 3.3, 3.4, 4.1 and 4.2.
- Exam One will be some combination of short problem solving questions, multiple choice questions and true/false questions.
- You may use your calculator and your personal manipulative kit during the exam.
- You may not use a cell phone or any other electronic device during the exam.
- You may use one side of a 3" x 5" note card of notes for the exam (15 in<sup>2</sup>).

### **CONCEPTS TO KNOW**

#### **Chapter Three Review Topics, page 209**

- 1(all)
  - Including converting base 10 numbers to Babylonian, Mayan and Egyptian
  - Including writing numbers in expanded form
- 3(all)
  - Including converting base number collections to the total number of units or converting base number collections to the minimal collection
  - Including sketching and explaining addition and subtraction with base number pieces and connecting this work to the standard paper and pencil algorithm
- 4e
  - Including writing story problems for each of the three subtraction settings
- 5ab and 6b
  - Including modeling multiplication with rectangular arrays and connecting this work to the standard paper and pencil algorithm and partial products
- 7
  - Including explaining whether or not a given set under a given operation is closed or not closed and why
  - Including explaining whether or not a given set under a given operation has a property such as commutative, associative, etc. and why
- 9, 10
- The three division models: Sharing (portative), Measurement (subtractive) and Array. For each division model you should be able to:
  - Sketch, label and explain base 10 pieces modeling the division setting
  - Group objects to show the division setting (sharing and measurement only)
  - Write a simple story problem that illustrates the division setting (sharing and measurement only)
- The concepts of factor, divisibility and multiple / how to write symbolically (i.e.  $a \mid b$ ).
- The concept of Least Common Multiple, what it means, how to compute it, how to apply it and its relationship to GCF
- The concept of Greatest Common Factor, what it means, how to compute it, how to apply it and its relationship to LCM
- Divisibility tests for 2, 3, 4, 5, 6, 9 and 10, what they are and how to apply them

### **REVIEW PROBLEMS**

**Practice Problems: Chapter Three Test, page 210-211** # 1 – 6, 10, 11, 13, 15

**Practice Problems: Chapter Four Test, page 252-253** # 1 - 15

***Your exam will cover all assigned homework & class activities! Just studying the Chapter Test questions will not be a sufficient review for Exam Two***