Test Review Stuff

1. Problem Solving

2. Sets
   (a) As a basis for whole numbers
   (b) Set builder notation
   (c) One to one correspondence, equivalence of sets
   (d) Subsets, element of
   (e) Operations on sets: $\cap$, $\cup$, complement, difference, $\times$
   (f) Whole numbers using sets: ordering, adding, subtracting, multiplication

3. Properties of numbers and operations: closure, commutivity, associativity, distributivity, identity, inverses

4. Exploding dots: bases, place value

5. Mathematical notation: $\mathbb{N}$, $\mathbb{Z}$, $\mathbb{Q}$, $\mathbb{R}$, $\exists$, $\subset$, $\in$, set builder

6. Division algorithm

7. Algorithms for operations: addition, subtraction, multiplication, long division

8. Exponents

9. Prime numbers

10. RSA Encryption

11. Modular arithmetic

12. Factors, greatest common divisor, least common multiple

13. Study Suggestions
   (a) Be sure to be able to perform all computations (bases, operations in different bases, division algorithm, factoring, modular arithmetic, gcd, etc.).
   (b) Look through the homework assigned (both due and not due).
   (c) Look through the Chapter Tests in the textbook. Be sure to understand all the True/False questions.