Review for MAT 141 Final Exam

- Correct all mistakes on tests and quizzes from this semester.
- Use the Chapter Reviews and Chapter Tests to pick problems similar to ones on the tests and quizzes that you need to practice. (Answers are in the back of the text for these problems.)
- Use the Chapter Tests to practice true and false questions. (Answers are in the back of text.)
- Print and do sample tests without the help of your notes, in order to practice the "test taking process". Starting with a "blank test" gives you more effective practice than just studying problems that are already worked out.
- Reread the **test outlines** for each test. Pick a topic such as "mental math & estimation" (chapters 4, 6, 7, 8) or "powers and scientific notation" (chapters 3, 7, 8, 9) and use the sections and page numbers to practice these concepts from all the chapters where they occur.
- Chapter 9 helps you to review and make connections between concepts in chapters 3-8.

Chapter 1
Practice problem solving with word problems from the textbook.
Chapter sections 1.2 & 2.4
Sequences: 7, 15, 23, 31, 39, 47, _____, _____, _____, **…**
      a. Fill in the blanks to continue this sequence.
      b. Describe this sequence with words and with a formula for the nth term.
      c. Find the 151st term in the sequence.

Chapter 2 section 2.1 – Review use of sets and Venn diagrams.
Chapter sections 2.2, 2.3, and chapters 3 & 4
Historical Number Systems and non-decimal bases: Take the number 354 and change it to
      a. Egyptian numeral, Babylonian numeral, Mayan numeral and Roman numeral.
      b. Base 5 numeral and base eight numeral.
      c. Also practice taking a number in each system and change it to a base ten numeral.

Chapters 3 & 4
Practice doing arithmetic [add, subtract & multiply] in base ten and non-decimal bases:
      a. Do simple number facts on a number line.
      b. Also do multiple-digit arithmetic in other bases.
        Do the following problems in base five.
        Subtract: 402   Multiply: 402
                  - <u>132</u>   x <u>23</u>

Chapter 5
Review the summary of divisibility tests in module 5. Show tests for whether 83460 is divisible by 2, 4, 8, 5, 10, 3, 9, 6, 12, 15, 7, and 11.

Chapter 6 & 7
Practice changing numbers from fractions to decimals to percents.
Use this with mental math and estimation problems. See test outline for page numbers.

Chapter 8
Illustrating rules for how to do integer arithmetic and understanding their properties.

Chapter 9
Understanding rational, irrational and real numbers and their properties. Solving equations & inequalities. Please read info on this website: http://mathforum.org/dr.math/faq/faq.integers.html