Math 236 test 3 topics:

Chapter 9:

- Evaluate a recurrence relation. Pg 468 # 1-12
- Write a recurrence relation for a described pattern. pg 468 # 13-20
- Prove by induction that a given explicit formula gives the same values as a sequence defined by a recurrence relation. pg 479 # 1-3. Additionally, any explicit formula you find in any other problem can be proven to be correct by induction.
- Use iteration to find an explicit formula for a sequence given by an recursive relation. See pg 480 # 11-19. In particular, you are likely to be asked for the explicit formula for a recurrence relation of the form $s_n = a \cdot s_{n-1} + b$ where $a \neq \pm 1$ or of the form $s_n = s_{n-1} + bn + c$
- Use theorem 9.2 (pg 486) to find a solution to a second order difference equation. pg 492 # 13, 17, 23

Chapter 1:

- Use a PERT diagram or a similar strategy to find the projected time to completion for a complex task and the critical path for the task. pg 9 # 9-16
- Tell (as a function) how many elementary operations a given algorithm uses. pg 33 # 27-30, 33, pg 39 # 31, 32