Homework Assignment for Week 15

Assigned June 01, 2011.

   You may not have enough time to do all of them this week. At least finish section 8.2. Continue on section 8.3 if you can.

1. Section 8.1: Problems: 3, 7, 19, 23, 29, 33, 35 39, 41, 45, 57, 61, 63, 65, 67, 80 (try as many substitutions as time permits, but at least two).

   Hint for problems 61-66: multiply appropriate factor on the numerator and denominator simultaneously. For example, $\sec\theta - \tan\theta$ for Problem 63.

2. Evaluate $\int x\sqrt{x+1}\,dx, \quad x > -1$.

   Hint: Let $x + 1 = t^2$ to break the square root.

3. Section 8.2: Problems: 7, 9, 13, 19, 25, 27, 29, 30, 43, 47.

   Hint for Problem 29: read Example 6.

4. Section 8.3: Problems: 11, 15, 17, 19, 33, 35, 39, 41, 42, 43.

   Hint for Problem 19, 33: read Example 4 on how to solve for the undetermined coefficients A, B, C, D if you cannot find other methods to solve them.

   Hint for Problem 41, 42: break the square root and cubic root by a proper change of variable.