Calculus Section 8.5 Partial Fractions (Linear Factors)  
-Understand the concept of partial fraction decomposition  
-Use partial faction decomposition with linear functions

Homework: page 549 #’s 5, 7, 9, 15, 23

Partial fractions is used to integrate rational functions with polynomial denominators that cannot be integrated with simple u-substitution (i.e. ). These types of functions can be integrated by completing the square and using trigonometric substitution. Partial fractions is a simpler method that re-writes the rational function as the sum/difference of multiple fractions .

**Example)**

**Example) Repeated Linear Factors** (include a fraction for each power of a factor)