Reading Questions 10

1. A partial fraction is the sum of two fractions.

2. The function $\frac{1}{(x-2)(x-5)}$ is the same as the function $\frac{-1/3}{x-2} + \frac{1/3}{x-5}$.

3. What is $\int \frac{1}{(x-2)} \, dx$?

Section 7.4 Algebraic Identities and Trigonometric Substitutions (Part 1)

Partial Fractions

P 1. Add $\frac{-2}{(x-3)} + \frac{1}{(x-2)}$.

P 2. Find A and B such that $\frac{1}{(2x-1)(x+2)} = \frac{A}{(2x-1)} + \frac{B}{x+2}$.

P 3. Sometimes you will have to factor a function before you can use partial fractions to compute the integral of it. Use partial fractions to find $\int \frac{1}{2x^2+3x-2} \, dx$.

Partial Fractions with Repeated Roots

P 4. Find $\int \frac{3}{(1-x)^2(x+2)} \, dx$.

P 5. Find $\int \frac{1}{x^2+1} \, dx$.

P 6. Use partial fractions to find $\int \frac{2x}{(x^3-x^2+x-1)} \, dx$.