

CALC 2 - REVIEW/PREVIEW UNIT 3

ALGEBRA AND INTEGRALS

REMEMBER THAT IT IS OFTEN HELPFUL TO SIMPLIFY AN INTEGRAND BEFORE TRYING TO ANTI-DIFFERENTIATE.

EXAMPLE 1: DISTRIBUTE

$$\int \sqrt{x}(x-1) dx$$

EXAMPLE 2: EXPAND

$$\int (x^2+1)^4 dx$$

EXAMPLE 3: DISTRIBUTE

$$\int \frac{\sqrt{x+1}}{x} dx =$$

EXAMPLE 4: FACTOR/CANCEL

$$\int \frac{x^3+8}{x+2} dx$$

EXAMPLE 5: YOU FIGURE OUT THE TRICK!

$$\int \frac{x-4}{\sqrt{x+2}} dx$$