The quiz is Thursday January 31 and covers u-sub.

Quiz 1 11am

Q1 11AM 5.5 Page 418 7, 11, 15, 17, 21, 37, 41, 53, 57, 67, 69

This Week In class, we’ll be reviewing u-substitution, §5.5, and then on Friday start integration by parts, §7.1

Study Problems Your most important problems are not the book problems, but the 14U problems online, which have solutions. Here’s additional practice, to work in TA session.

u-sub

\[ a) \int \frac{\sin x}{\cos^2 x} \, dx \quad b) \int_{0}^{\frac{\pi}{2}} \frac{\sin x}{\cos^2 x} \, dx \]

\[ c) \int \frac{x}{x - 1} \, dx \quad c) \int_{e^2}^{e^3} \frac{1}{x \ln x} \, dx \]

\[ d) \int \sinh x + \cosh x \, dx \quad e) \int_{0}^{\ln 2} \tanh x \, dx \]

\[ f) \int_{0}^{1} \frac{x}{\sqrt{1 - x^2}} \, dx \quad g) \int \frac{x}{\sqrt{x + 1}} \, dx \]

Parts Practice

\[ a) \int \frac{\ln x}{x^2} \, dx \quad b) \int x \sec^2 x \, dx \quad c) \int x \tan^{-1} x \, dx \]

\[ d) \int \frac{\sqrt{\ln x}}{x} \, dx \quad e) \int \frac{\ln x}{\sqrt{x}} \, dx \]

In the middle ages, lords and vassals lived in a futile system.

That's 'penal' system.

Just when I thought this junk was beginning to make sense.