The quiz is Thursday Sept 6 and covers u-sub.

**Quiz 1**

10am

**Q1 10AM** 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 ‘pejul’ system.*

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