Homework 9 **Due March 2, 2026**
Calculus II **Prof. Nollet**

Section 8.2 #4, 7, 12, 19, 33, 36, 51, 65, 66 and A. $\int \tan^5 x \sec^3 x \, dx$.

Hints:
#5, 7, 12. Method from class. On #12 both methods work, which is easiest?
#19. Use the double angle formula. You will have to use it a second time to complete the integral.
#33, 36, 51. Use the two ideas from class.
#65. This one is tricky. Use the trig identify $\sec^2 x = 1 + \tan^2 x$ in the numerator to get two integrals: one should be easy, the other is in Table 8.1 in the book.
#66. Use trig identity $\sin^2 x = 1 - \cos^2 x$ in the numerator, you should get two integrals that are easy u-substitutions. You can also write the integral in terms of secant and tangent, then use the idea from class to compute it.
A. Aim for the $u = \sec x$ substitution.