

APPM 4/5520

Review Problems for Exam II, Sections 7.1-7.2

- $\int x \sec(x^2 - 5) dx$
- $\int \frac{4t^3 - t^2 + 16t}{t^2 + 4} dt$
- $\int \frac{1}{1 + \cos x} dx$
- $\int_0^{2\pi} \sqrt{\frac{1 - \cos x}{2}} dx$
- $\int 10^{2x} dx$
- $\int_0^{\pi/4} \frac{1 + \sin x}{\cos^2 x} dx$
- $\int_{\theta}^2 \sin 2\theta d\theta$
- $\int \sin(\ln x) dx$
- $\int \frac{dx}{e^x + e^{-x}}$
- $\int \frac{1-x}{\sqrt{1-x^2}} dx$
- $\int \sin^{-1} z dz$
- $\int_1^e x^3 \ln x dx$
- $\int \csc x dx$
- $\int \frac{\cot(\ln x + 2)}{x} dx$
- $\int_{-\pi/4}^{\pi/4} \sqrt{1 + \tan^2 w} dw$
- $\int e^{-x} \cos x dx$
- $\int x \tan^{-1} x dx$
- $\int x^3 3^x dx$
- $\int_1^e \ln x dx$
- $\int \left(\frac{\ln x}{x}\right)^2 dx$