Math 109 HW3

Fall 2018

Evaluate the following integrals

1. $\int x \tan x \sec x dx$

2. $\int \sin \frac{1}{2} x \cos x dx$

3. $\int \tan^2 x \sec x dx$

4. $\int \frac{x}{\sqrt{1+x^2}} dx$

5. $\int \frac{\sqrt{t^2-3}}{t^4} dt$

6. $\int \frac{1}{\sqrt{x^2+4x+7}} dx$

7. $\int \frac{\sqrt{x^2-3}}{x^3} dx$

8. $\int (x-1)^2 \sqrt{1+4x-2x^2} dx$

9. $\int_0^{\sqrt{3}} \frac{1}{(x^2+1)^2} dx$

10. $\int_0^{\frac{\pi}{3}} \frac{\tan t \sec t}{\sqrt{1+\sec^2 t}} dt$