

408L CLASS PROBLEMS

FEBRUARY 14TH, 2020

Problem 1. Find $\int \frac{\log(x)}{x^2} dx$.

Problem 2. Find $\int_0^{\frac{\pi}{3}} x \sec^2(x) dx$.

Problem 3. Find $\int \tan^{-1}(x) dx$.

Problem 4. Find $\int \cos(x) \sin(2x) dx$.

Problem 5. Find $\int \sin(2x) e^{\sin(x)} dx$.

Problem 6. Graph the parametric curve:

$$\begin{aligned}x &= 16 \sin^3(t) \\ y &= 13 \cos(t) - 5 \cos(2t) - 2 \cos(3t) - \cos(4t).\end{aligned}$$