

Assignment 12

Oral questions

1. Exercise 32.6
2. Exercise 33.14
3. Exercise 26.4
4. Exercise 34.12
5. Find $\int_0^{\sqrt{\pi/2}} \sin(x^2) \cdot x \, dx$ and $\int_{\pi/4}^{\pi/2} \ln(\sin(x)) \cos(x) \, dx$.
6. Find the antiderivative of $\frac{2x+1}{x(x^2+1)}$.

Question to be answered in writing

1. Find the antiderivative of $x^3 \cdot \sin(x)$. (Hint: You will have to use integration by parts several times.)