

Problem Set
Section 7.5

Strategy of Integration

Problem 1

Find the integral $\int \frac{x + \arcsin(x)}{\sqrt{1-x^2}} dx$.

Problem 2

Evaluate $\int_{-1}^2 |e^x - 1| dx$.

Problem 3

Evaluate $\int \frac{\tan^{-1} x}{x^2} dx$.

Problem 4

(a) Evaluate $\int \sqrt{1 - \sin(x)} dx$.

(b) Evaluate $\int_{-\pi/2}^{\pi/2} \sqrt{1 - \sin(x)} dx$.

Problem 5

Find the integral $\int x \sin^2 x \cos x \, dx$.

Problem 6

Find the integral $\int \frac{dx}{\sqrt{x} + x\sqrt{x}}$.

