

Worksheet 2

1. Using integration by parts, find the integral.

$$\int e^{\sqrt{x}} dx$$

2. Using integration by parts, find the integral.

$$\int_{-1/2}^{1/2} \sqrt{\frac{1-x}{1+x}} \arcsin(x) dx$$

3. Find the following Trigonometric integral.

$$\int_0^{\pi/3} \sec^5(x) \tan(x) dx$$

4. Find the following Trigonometric integral.

$$\int \cot^5(x) \sin^8(x) dx$$

5. Using integration by parts, find the integral.

$$\int \frac{x^3 e^{x^2}}{(x^2 + 1)^2} dx$$