

Problem Sheet 2

Evaluate the following integrals

1. $\int x^2 \ln x \, dx.$

2. $\int x^2 e^{3x} \, dx.$

3. $\int \cos^3 x \sin^4 x \, dx.$

4. $\int \frac{x^2}{\sqrt{25-x^2}} \, dx.$