

Homework Set 7

(sect 6.1: Integration by Parts)

Evaluate the given integral.

1. $\int x e^{-x} dx$

2. $\int x \cos(3x) dx$

3. $\int \ln(x + 5) dx$

4. $\int x^6 \ln(x) dx$

5. $\int \arctan\left(\frac{x}{4}\right) dx$

6. $\int_1^2 \frac{\ln(x)}{x^2} dx$

7. $\int_0^\pi x^3 \sin(x/2) dx$

8. $\int x^5 e^x dx$

9. $\int x^5 \sin(x^3) dx$

10. $\int e^{2x} \cos(x) dx$