

7.2 Integration by Parts

Name:

Date:

P 3. Find

$$\int t \sin t \, dt$$

P 7. Find

$$\int p e^{-0.1p} \, dp$$

P 9. Find

$$\int x \ln x \, dx$$

P 13. Find

$$\int \sin^2 \theta \, d\theta$$

P 21. Find

$$\int \frac{\ln x}{x^2} dx$$

P 25. Find

$$\int r(\ln r)^2 dr$$

P 29. Find

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

P 43. Find

$$\int \ln((5 - 3x)^2) dx$$

P 61. Derive the formula

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