

7.7 - Approximate Integration

Calculus II

7.5 - Strategy of Integration

Name what strategy you would use for the following problems:

1. $\int xe^x dx$

2. $\int \cos^4(2t) dt$

3. $\int \sqrt{1-7w^2} dw$

4. $\int \frac{x^4-5x^3+6x^2-18}{x^3-3x^2} dx$

7.7 - Use the Midpoint, Trapezoid, and Simpson's Rule for the following integrals

1. $\int_1^7 \frac{1}{x^3+1} dx; n = 6$

a. Midpoint

b. Trapezoid

c. Simpson's

2. $\int_{-1}^2 \sqrt{e^{-x^2} + 1} dx; n = 6$

a. Midpoint

b. Trapezoid

c. Simpson's

3. $\int_0^4 \cos(1 + \sqrt{x}) dx; n = 8$

a. Midpoint

b. Trapezoid

c. Simpson's