

Calculus NYB Selected Exercises

Stewart 8th Edition

Inverse trigonometric functions.

- 1.5 Inverse Functions and Logarithms (63–72)
- 2.6 Limits at Infinity; Horizontal Asymptotes (35, 40)
- 3.5 Implicit Differentiation (49–57)
- 4.9 Antiderivatives (18, 22, 24, 33)
- 5.3 The Fundamental Theorem of Calculus (39, 42)
- 5.4 Indefinite Integrals and the Net Change Theorem (12, 41, 43)

Techniques of Integration.

- 5.5 The Substitution Rule (7–28, 30–35, 38–48, 53–71, 79, 87–91)
- 7.1 Integration by Parts (3–13, 15, 17–24, 26–42)
- 7.2 Trigonometric Integrals (1–31, 33–49)
- 7.3 Trigonometric Substitution (5–20, 22–30)
- 7.4 Integration of Rational Functions and Partial Fractions (1–36, 46–51, 53, 54)
- 7.5 Strategy for Integration (1–80; skip 53, 74)

Improper Integrals.

- 4.4 Indeterminate Forms and l'Hospital's Rule (13–67; skip 24, 28, 29, 38, 42, 58)
- 7.8 Improper Integrals (1, 2, 5–41, 58)

Applications of Integration.

- 6.1 Areas Between Curves (1–14, 17, 22, 23, 25, 27)
- 6.2 Volumes (1–12, 15–18)
- 6.3 Volumes by Cylindrical Shells (1–20, 21–25 part (a) only, 37, 38, 41–43)
- 8.1 Arc Length (9, 11, 14, 15, 17–20, 33)
- 9.3 Separable Equations (1–14, 16–20, 39, 42, 45–48)
- 9.4 Models for Population Growth (9, 11)

Infinite Sequences and Series.

- 11.1 Sequences (1–3, 13–18, 23–51)
- 11.2 Series (1–4, 17–47, 60–62; skip 45)
- 11.3 The Integral Test and Estimates of Sums (3–5, 21, 22, 29)
- 11.4 The Comparison Tests (1–31, 41, 44–46)
- 11.5 Alternating Series (2–7, 12–15)
- 11.6 Absolute Convergence and the Ratio and Root Tests (1–38)
- 11.7 Strategy for Testing Series (1–28, 30–34)
- 11.8 Power Series (3–21, 23–26, 29–31)
- 11.10 Taylor and Maclaurin Series (3–9, 11–14, 21–26)

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