

8.5: Partial Fractions

Learning Objectives. Upon successful completion of Section 8.5, you will be able to...

- Answer conceptual questions involving partial fractions.
- Set up or find a partial fraction decomposition.
- Evaluate integrals involving partial fractions with only simple linear factors.
- Evaluate integrals involving partial fractions with repeated linear factors.
- Evaluate integrals involving partial fractions with irreducible quadratic factors (simple or repeated).
- Evaluate integrals involving improper rational functions (where long division is needed first).
- Use partial fractions to find areas, volumes, or arc lengths.
- Evaluate integrals involving partial fractions that require a preliminary step (such as a change of variables).

Title