

CHAPTER OVERVIEW

9: Exact and Inexact Differentials

Chapter Objectives

- Understand the concept of the total differential
- Understand the concept of exact and inexact differentials.
- Be able to test whether a differential is exact or not.
- Understand how to integrate differentials along different paths.
- Understand the role of exact and inexact differentials in thermodynamics.

[9.1: The Total Differential](#)

[9.2: Exact and Inexact Differentials](#)

[9.3: Differentials in Thermodynamics - State and Path Functions](#)

[9.4: A Mathematical Toolbox](#)

[9.5: Line Integrals](#)

[9.6: Exact and Inexact Differentials \(Summary\)](#)

[9.7: Problems](#)

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