

Calculus

Date:

Items Needed: .Book,.

Objective: The students will determine problem solving techniques to solve related rates.

Lesson:

- An important use of the Chain Rule is to find the rates of change of two or more related variables.
- An example of this is when water is drained out of a conical tank, the volume V , the radius r , and the height h of the water level are all functions of time t .
- Look at the formula on page 189 and use implicit differentiation to come up with the formula.
- Look at example 1.
- Look at example 2 pointing out what to find and what is given.
- Look at example 3
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Assignment: Have students do 4, 11, 13, 15, 16, p. 194

Evaluation: (Could be from any one/several of the following)

Responses from classroom questions
Results of classroom sample problems
Homework responses
Check answer with Calculator
End of the section exam

Enrichment: