

- I. Double Integrals:
  - A) Estimate from level curves
  - B) Estimate from table
  - C) Symbolically
    - i) Rectangular coordinates
    - ii) Polar coordinates
    - iii) Switch between the two coordinate systems
    - iv) Switch the order of integration
  
- II. Triple Integrals
  - A) Rectangular coordinates
  - B) Cylindrical coordinates
  - C) Spherical coordinates
  - D) Switch the order of integration
  - E) Switch between the 3 coordinate systems
  
- III. Applications of Integration
  - A) Volume
  - B) Mass
  - C) Center of Mass (Equations given)
  
- IV. Parametric Curves
  - A) Lines
  - B) Circles
  - C) Helix
  
- V. Motion Problems
  - A) Given position vector, find velocity, and acceleration vectors.
  - B) Speed

Suggested problems for review:

Pg 911 -914: 1,3,5\*,10 – 14\*,15,16\*,17,19,21\*,24\*,41,4359\*,69,72\*

Pg 950: 1,4,7,9\*,14,15,23,31\*,32\*,42\*

Note: This list assumes you've already completed the homework assignments given in class.

Answers to the even ones can be found in the solutions book located in the tutoring center on the first floor of building 4 on East campus.