List of specifically labeled Problems/Definitions in the chapter files and a short description:

firstreview --- the first review problem, graphing functions.

differentialtangentline -- review problem on differentials and their connection to the tangent.

diff-sphere -- differential problem related to sphere size.

**Chapter 2:**

def:vecadd

prob:donkey – Donkey-Vector problem from chapter 2

prob:horseline – chapter 2 problem about a horse and a line with vectors.

prob:dot angle practice – chapter 2 problem that compares dot-produce to law of cosines/angle.

prob:dot angle practice2 – chapter 2 problem that compares dot-produce to law of cosines/angle. (SECOND PART)

prob:dot product facts – A bunch of dot-product properties.

prob:dot prep – proof of magnitude squared subtraction in vectors

prob:dot angle formula – derivation of dot-product to magnitude/cosine definition.

review:matrices – where matrices and determinants are introduced/reviewed.

prob:plane equation normal point

prob:plane equation three points

prob:force intro – problem on projections and force

**Chapter 3**

prob:polar coordinate equations -- statement of the various polar coordinate equations.

polar coordinate transformation graph -- transforming polar coordinates.

**Chapter 3b? –** Spherical coordinates?

Missing: graphing spherical coordinates

**Chapter 4: Functions**

prob:pebbles – introductory problem that has a pebble dropping off a building in time

prob:parametric curve in plane -- or, the horse on a track problem.

prob:jet intro for space curves -- first problem about space curves and jets also labeled: “space curve example”

prob:function table -- first introduction of the table for understanding input/output of functions.

prob:parametric surface example -- multiple jets!

prob:3dsurface plot -- introduction to how to create a 3-d surface plot

prob:intro to contour plots -- first problem that describes how to do contour plots.