Do these two problems, but do not hand them in (because copying the images would be tedious and error-prone).

Section 14.6 #26, 42.

Do the following problems and hand them in. Follow the convention from our course, that the direction vector does not need to be of length 1. For example, in problem #17 the length of $\vec{v}$ is 3, so your answer might be 3 times as large as the book's answer.

Section 14.6 #5, 17, 39, 51, 61, 68.

Problem #68 is challenging. If you want a hint, then here's the strategy that I recommend: First compute the tangent plane at an arbitrary point (a, b, c) on the surface. Then find where that plane intersects the coordinate axes. Then use this random fact of geometry, that maybe you've never seen: If A is the area of the base of a pyramid and H is the height measured perpendicular to that base, then the volume is $AH/3$.