

**Discovering GIS and ArcGIS**  
**Chapter 17**

**Name:** \_\_\_\_\_

**Question 17.1:** How many points does this LAS Dataset (which is comprised of a single LAS file) contain?

**Question 17.2:** What is the point spacing in this dataset? That is, how many feet apart are the lidar points?

**Question 17.3:** The points classified with a value of “1” (Unassigned) should likely have been classified according to which of the LAS classifications? How can you tell?

**Question 17.4:** Switching classifications from 1 to 6 did not solve all the misclassifications. What features are now incorrectly classified as “6”? (**Hint:** Zoom in on some areas and compare the lidar points with the NAIP imagery.)

**Question 17.5:** Aside from buildings, what other types of specific features on the landscape are considered “non-ground” in terms of lidar measurements?

**Question 17.6:** What is the elevation height of the flat roof of the Lincoln Building (in feet)?

**Question 17.7:** Using these two measurements, what is the approximate height of the Lincoln Building?

**Question 17.8:** From measurements made in the Profile View, what is the height of the Lincoln Building? (Compare with your answer from Question 17.6.)

**Question 17.9:** What is the height of the Home Savings and Loan building?

**Question 17.10:** What are the advantages and disadvantages of working with the 3D View as opposed to the Profile View? (*Hint:* Try using the Measure tool and the options for Vertical Exaggeration from the pull-down menu to explore some 3D functions when answering this question.)

**Question 17.11:** How are the two buildings (Lincoln and Home Savings) represented using the TIN data structure (compared to the point elevation representation)?

**Question 17.12:** Why do all of the buildings have their sides as a solid red color? What is being measured and shown in this display?

**Question 17.13:** Not counting the non-ground returns, what is the highest and lowest elevation being measured by the lidar dataset? (*Hint:* You can use the Identify tool on contour lines to get information about their elevation.)

**Step 17.6:**

Print a layout that incorporates the features listed here.