

Discovering GIS and ArcGIS
Chapter 14

Name: _____

Question 14.1: How many points are in the Ohio precipitation points layer? (That is, how many precipitation sample points are you dealing with in this exercise?)

Question 14.2: Just from visual examination, where were the greatest concentrations of rainfall amounts in Ohio in 2011?

Question 14.3: How far apart are the precipitation points (in meters)?

Question 14.4: Why do some points have a circular set of grid cells centered around that point while others do not?

Question 14.5: What is the estimated total precipitation (in inches) at each of the six airport sites (according to the IDW interpolation)?

Question 14.6: What is the average amount of precipitation for the entirety of Cuyahoga County (according to the IDW interpolation)?

Question 14.7: What is the average amount of precipitation for the entirety of both Geauga and Lorain Counties (according to the IDW interpolation)? Give a value for each county.

Question 14.8: Why does the Spline surface appear “smoother” (i.e., has less of the circular effect) than the IDW surface?

Question 14.9: What is the estimated total precipitation (in inches) at each of the six airport sites (according to the Spline interpolation)?

Question 14.10: What is the average amount of precipitation for the entirety of Cuyahoga County (according to the Spline interpolation)?

Question 14.11: What is the average amount of precipitation for the entirety of both Geauga and Lorain Counties (according to the Spline interpolation)? Give a value for each county.

Question 14.12: How do the two surfaces visually compare with one another (in terms of patterns and smoothness of the surfaces)?

Question 14.13: How do the interpolated values for the IDW surface and the Spline surface compare to the six actual values? Which values are too high, too low, or nearly match in each dataset? Based solely on these six points, which surface is more representative of the actual observed values and why?

Step 14.7:

Print a layout or publish a Web map of final results.